

Supplemental Report of the 2006 Budget Act 2006-07 Fiscal Year

CONTAINING STATEMENTS OF INTENT FOR REQUESTS FOR STUDIES ADOPTED BY THE LEGISLATURE

Compiled by the Legislative Analyst's Office June 28, 2006

June 30, 2006

TO: AGENCY SECRETARIES
DEPARTMENT HEADS
BOARDS AND COMMISSIONS

The *Supplemental Report of the 2006 Budget Act*, dated June 28, 2006, is now available on the Legislative Analyst's Office's Web site at . This report contains statements of legislative intent that were adopted by the conference committee on the 2006 Budget.

Please distribute your responses to the supplemental report, and any other report or document you are required to submit to the Joint Legislative Budget Committee (JLBC), as follows:

17 copies to: Hon. Wesley Chesbro, Chair of the Joint Legislative Budget Committee, Room 5035, State Capitol, Sacramento, CA 95814,
Attention: Ms. Peggy Collins, for distribution to the JLBC Members.

One copy to the Legislative Analyst's Office.

One copy each to:

Mr. E. Dotson Wilson, Chief Clerk of the Assembly, Room 3196,
State Capitol, Sacramento, CA 95814;

Mr. Gregory Schmidt, Secretary of the Senate, Room 400, State Capitol,
Sacramento, CA 95814; and

Ms. Diane Boyer-Vine, Legislative Counsel, 925 L Street, Suite 900,
Sacramento, CA 95814, Attention Ms. Diane Anderson.

In your transmittal letter to Senator Chesbro, please *cite the 11-digit budget item number(s) and the budget year* to which the response relates.

If you have any questions, you may contact our office at (916) 445-4656.

Sincerely,

Elizabeth G. Hill
Legislative Analyst

Item 3600-001-0001—Department of Fish and Game

1. ***Report on Activities, Statutory Mandates, Funding Sources, and Outcomes.*** On or before January 10, 2008, the Department of Fish and Game (DFG) shall provide a comprehensive report to the Legislature (including budget and fiscal committees from both houses) on DFG's activities, funding sources, and outcomes. The report shall meet all of the requirements set forth in Provision 1 of Item 3600-001-0001 of the *Supplemental Report of the 2005 Budget Act* as applied to the 2006-07 and 2007-08 fiscal years.
2. ***Interim Reporting on Select Key Activities.*** On or before January 10, 2007, DFG shall provide a report to the Legislature (including budget and fiscal committees from both houses) on the budgeted activities for 2006-07 and 2007-08 the following program areas: (1) DFG's enforcement program, (2) Marine Division, (3) land management and operations, (4) California Environmental Quality Act (CEQA) and Section 1600 program activities, and (5) conservation planning activities. For each of these activities, the department shall include a description of the program, an estimate of the budgeted resources dedicated to the program in 2006-07 and 2007-08, and a discussion of the key, measurable objectives of the programs for 2006-07 and 2007-08.
3. ***Interim Progress Report on Tasks Associated With Corrective Action Plan.*** The department shall make progress reports for each task associated with its corrective plan available quarterly through January 2008 for legislative review upon request. These tasks include: (1) Review Management Tools for Monitoring Budget Allotments and Activities; (2) Review of Methodology Used to Project Revenues; and (3) Department Program Budget Structure Development; (3A) Department Project Codes Review, (3B) Program Activity Review, (3C) Cal STARS Index and PCA Review, (3D) Index/PCA Budget Allotments and Program Activities Review, (3E) Index and Program Alignment Review.
4. ***Cost Analysis of Mosquito Abatement to Minimize West Nile Virus.*** On or before January 10, 2007, DFG shall provide a report to the Legislature (including budget and fiscal committees from both houses) on its costs associated with mosquito abatement on department-owned lands. In particular, the report shall include the following:
 - Actual expenditures in 2006-07 for mosquito abatement on department-owned lands, as of December 1, 2006, and expenditure plans for any remaining unencumbered funds.

- A cost comparison per acre of land between DFG and local mosquito abatement districts for mosquito abatement related work.
5. ***Interim Update on Five-Year Infrastructure Plan.*** On or before January 10, 2007, the department shall report to the chairs of the appropriate policy committees and the fiscal committees in both houses on an interim update on its five-year infrastructure plan. The interim update shall be provided after the department has conducted a comprehensive review of its infrastructure and deferred maintenance needs (facilities and lands).
 6. ***Endowment Funds.*** On or before January 10, 2008, the department shall report to the chairs of the appropriate policy committees and the fiscal committees in both houses on its plans to expend the endowment funds it has received as mitigation.
 7. ***One-Time General Fund Augmentations.*** On or before February 1, 2007, the department shall provide a report to the Legislature on its expenditures of one-time General Fund augmentations in the *2006-07 Budget Act* for activities in the marine region, salmon and steelhead restoration projects, nongame fish and wildlife trust resources, and funding for the Coastal Wetlands Account.
 8. ***Salmon and Steelhead Trout Restoration—Klamath River Projects.*** On or before January 10, 2007, DFG shall provide a report to the Legislature (including budget and fiscal committees from both houses), on its use of state funds for restoring the Klamath River, its progress to date, and its plans for the budget and future years for this restoration effort. The department's report shall discuss how the department's efforts are being coordinated with those of other state agencies expending funds for this purpose. It is the intent of the Legislature that the state undertake a systematic approach to Klamath River restoration.

Item 3600-001-0001 DEPARTMENT OF FISH AND GAME

1. Report on Activities, Statutory Mandates, Funding Sources, and Outcomes.

On or before January 10, 2008, the Department of Fish and Game (DFG) shall provide a comprehensive report to the Legislature (including budget and fiscal committees from both houses) on DFG's activities, funding sources, and outcomes. The report shall meet all of the requirements set forth in Provision 1 of Item 3600-001-0001 of the Supplemental Report of the 2005 Budget Act as applied to the 2006-07 and 2007-08 fiscal years.



DEPARTMENT RESPONSE:

FY 2007-08 -- Report on Activities, Statutory Mandates, Funding and Outcomes

A report will be rendered on or before January 10, 2008.

Item 3600-001-0001 Department of Fish and Game

2. Interim Reporting on Select Key Activities.

*On or before January 10, 2007, Department shall provide a report to the Legislature (including budget and fiscal committees from both houses) on the budgeted activities for 2006-07 and 2007-08 the following program areas: (1) **Department's enforcement program**, (2) Marine Division, (3) land management and operations, (4) California Environmental Quality Act (CEQA) and Section 1600 program activities, and (5) conservation planning activities. For each of these activities, the department shall include a description of the program, an estimate of the budgeted resources dedicated to the program in 2006-07 and 2007-08, and a discussion of the key, measurable objectives of the programs for 2006-07 and 2007-08.*

DEPARTMENT RESPONSE:

FY 2006-07 -- Enforcement Program

PROGRAM DESCRIPTION

The Enforcement Program is a significant part of the foundation and primary mission of the Department. Biology combined with enforcement of the regulations promulgated to manage the State's resources is identified through the Public Trust Doctrine as the responsibility of the Department. Game Wardens have transitioned from primarily supporting the hunting and angling communities to fully realizing obligations to all constituents. Habitat protection, human-wildlife conflict, exotic animal permitting, pollution and spill response/investigation, threatened and endangered species protection, illegal commercialization of native wildlife, homeland security, and public safety are just a fraction of the responsibilities facing Wardens today.

Over the years, mandates have increased the Law Enforcement Division's (Enforcement) scope of responsibility. Every new regulation, either state or federal, mandating the protection of wildlife and habitat resources or the provision of recreational and commercial opportunities impacts Enforcement's workload. Development projects that impact threatened or endangered species and streambeds all require compliance checks, and violations require in-depth and time consumptive investigations by Enforcement staff. Pollution events and water quality issues occur at

alarming rates in state waters, and Wardens are the primary investigators for both inland (off-highway) and ocean spills. Many of these mandates are unfunded, which coupled with the increased pressure from the state's growing population and Warden staffing levels, have affected Enforcement's ability to limit the impact to resources.

Currently, there are a total of 361 sworn positions. Of this total, 254 are Warden positions and 39 of these positions are currently vacant. Governor Schwarzenegger has directed that no law enforcement positions be eliminated, and Enforcement has not suffered any further reductions since he took office.

Director L. Ryan Broddrick initiated a reorganization that involved reconfiguring the reporting structure to allow positions in the field (reference Attachment A for a map reflecting the geographic distribution of the Straight-line Deployment Plan) and transitioning the enforcement program to the Law Enforcement Division. With this transition, the Chief of Patrol serves as a Deputy Director, thus straight-lining this position's reporting structure directly to the Department's Executive Office.

These steps, while not the complete solution for adequately addressing the needs of the environment and the expectations of the constituents, have resulted in greater flexibility in deploying Wardens and equipment in the field to protect fish and wildlife resources, and allow Enforcement to operate more strategically and in coordination with the other departmental programs. The budget augmentations authorized by the Governor and the Legislature will further enable Enforcement to more effectively and efficiently serve the resources.

BUDGETED RESOURCES

Changes in the Department's fund sources that require fund shifts can have a dramatic impact on Enforcement's activities. For 2006-07, the shift in Enforcement's budget allocation reflects a significant increase in funding from the General Fund as follows:

FUND	2005-06	2006-07
General Fund	13.093%	47%
FGPF Non-dedicated ¹	76.681%	42.688%
ELPF	10.226%	9.367%

This shift allows for more flexibility in performing the full scope of duties required of Enforcement staff in preserving and protecting the state's resources.

Enforcement's 2006-07 fiscal year budget including reimbursements, agreements and one-time augmentations is \$48.9 million. This is an increase of approximately \$4.0 million over the 2005-06 budget, which is in part attributed to the recent bargaining unit contract signing and associated increases in supervisors' and managers' pay

¹ Fish and Game Preservation Fund (FGPF) Non-dedicated (Fund 0200.01)

schedules. Approximately \$2.0 million dollars are one-time funds utilized for equipment purchases and to provide overtime for directed enforcement activities.

Reimbursements and agreements with federal, state and municipal partners represent approximately \$15.0 million. Reimbursement work includes marine protection outside of state waters, MPAs and National Marine Sanctuary enforcement, the Delta Bay Enhanced Enforcement Program (DBEEP) and Hunter Education.

Funding of \$900,000 from the one-time non-game species General Fund augmentation will aid Enforcement in the purchase and maintenance of critical equipment that will benefit all species and habitat. This will include equipment for the Department's Forensic Lab and Enforcement's patrol operations; aircraft procurement and maintenance for aerial support of non-game surveys, watershed observations, habitat destruction or manipulation; and pollution investigations. These funds will also help develop and deliver educational training for District Attorneys on the critical importance and nuances of wildlife and habitat law enforcement and regulation support.

Enforcement will utilize \$250,000 of the \$10.0 million augmentation for the Klamath watershed to purchase equipment and conduct additional directed enforcement details along the Klamath.

Enforcement will also receive \$250,000 of the \$10.0 million allocated for the Salmon and Steelhead Recovery project to purchase equipment and provide overtime opportunities to patrol the waters associated with general salmon and steelhead recovery projects.

Authority to spend \$5,000 of Cal-Tip funds generated by fines and penalties associated with fish and game violations was approved in the Governor's Budget and will be utilized to fund overtime, thus allowing officers to respond to citizen reports of on-going violations. In previous years, there was no funding for the necessary overtime to respond to these reports, which resulted in only one out of every three Cal-Tip reports receiving a timely response.

The Governor continues to place emphasis on ocean protection and Enforcement is the primary law enforcement agency responsible for protection of California's marine resources. FY 2006-07 budget augmentations from the Halibut Trawl and Marine Life Protection Areas (MLPA) program will allow for nine new enforcement positions (\$730,000). Of these positions, one, at the level of Captain, was recently filled, to assist with the scoping and implementation of ongoing MLPA efforts. The other eight Warden positions will be filled in December 2008, when the approximate 16-24 month recruitment, background clearance and peace officer training process can be completed. The funds for these positions will be used to support enforcement field operations for the MLPA until that time.

KEY MEASURABLE OBJECTIVES

Patrol

The additional resources allocated for FY 2006-07 will allow for increased patrols by field Wardens that have been hampered by fiscal restrictions on overtime. Wardens working the newly authorized overtime have already contacted close to 250,000 more people this year than in 2005 and have noticed an increase in the violation rate: through September 2006, an increase of approximately 1,500 violations in comparison to the same time last year (Reference Attachment B for a summary of 2006 violations.) This increase is indicative of an increased Warden presence to enforce Fish and Game laws, not of a rise in noncompliance.

Additional patrols made possible by authorized overtime and funds for travel, will focus on Departmental lands to address unauthorized off road vehicle use, illegal camps and other unauthorized activities.

Poaching Details

Limited resources in FY 2005-06 restricted Enforcement activities to 40-hour workweeks with no overtime, and provided little opportunity for travel to implement directed enforcement details. As a result and during this time period, checkpoints, a primary enforcement method, were significantly limited. With funding from budget augmentations and the ability to utilize shifted funds, Enforcement is now able to increase the number of checkpoints, including marine checkpoints, which help identify poaching of resources already heavily impacted and stressed. Additional checkpoints for Chronic Wasting Disease (CWD), a devastating disease that affects deer and elk herds, are expected to help address the 90% non-compliance by hunters returning from out-of-state hunts with restricted deer and elk parts that was reported this last year. Within just the first three months of FY 2006-07, twice the number of checkpoints had been conducted by Enforcement targeting deer and CWD, abalone/marine species, and Lake Davis Northern Pike compliance.

The additional funding will also be used to increase decoy operations (deer and elk decoys set up to catch poachers taking game out-of-season, in closed areas and after hours), direct enforcement details (multiple Game Wardens are directed to a specific area for targeted resource enforcement) and overtime opportunities for these efforts. Thus far, 18 decoy and directed enforcement operations have been conducted, and overtime (10 hours per month) allocated to increase Warden field presence. Over 800 citations have been issued during these enforcement details and thousands of citizens contacted.

Equipment Purchase

Enforcement will utilize augmented funds to purchase necessary equipment that they have not been able to obtain using only its established budget resources. A total of 130 aging and operationally inefficient vehicles have been or are being replaced, and approximately 300 computers have been upgraded. Field equipment purchases, such as all-terrain vehicles, digital cameras and recorders, a 22' jet boat, night vision equipment and Global Positioning Systems (GPS) for the marking and locating of areas

of interest and investigations/evidence, have already and will continue to increase efficiency in patrols. These efficiencies are expected to occur beyond FY 2006-07 and FY 2007-08.

The Forensic Lab will utilize approximately \$250,000 to purchase equipment and pay overtime to lab staff. The new equipment will enhance the Lab's current forensic capabilities, including establishing genetic markers on various species, such as abalone, mountain lion, bear and sturgeon. Lab cases will be processed more quickly and effectively with the new equipment, and with the ability of the scientists to work overtime that will also be funded by the augmentations.

Air Services will utilize approximately \$250,000 for maintenance of existing aircraft, as well as towards the purchase of a new Vulcan Air high-winged aircraft. This will ensure the safety and efficiency of the existing fleet, and increase the number and timeliness of surveying operations. The Law Enforcement Division and Department Attorneys will utilize \$50,000 to create and conduct statewide training conferences for District Attorney's on the critical importance and nuances of wildlife and habitat law enforcement, prosecution and regulation support.

Hunter Education

Hunter Education is an important Enforcement function as this training helps reduce the frequency of accidents involving the use of firearms and archery gear while hunting; increases the understanding and support of wildlife management principles and related regulations and laws; improves the hunter's public image by emphasizing responsibilities and sportsmanship in the field; and allows Wardens to further their traditional role in Community-Oriented Policing.

In California, the continuing trend of hunters going out-of-state to hunt is a constant challenge. There were 22,560 students who received Hunter Education this past year, and projections indicate that figure will raise to 23,000 this year. There has been a lower percentage of juveniles who take this required hunting safety training, which highlights a shift in demographics. As in other states, Hunter Education, and hunting in general, has to compete with other year-round activities for youth. To help ensure future hunting-related revenues that support Department hunting and management programs, steps will be taken over the next two years to make Hunter Education more accessible and convenient.

The additional funding provided will make possible course expansion that will take the average 10-hour classroom course and make it more accessible by allowing for a four-hour internet/home study class of the "text book" sections. Enforcement has also instituted an Advanced Hunter Education course to take hunters a step beyond the basic instruction course. Topics include: Land Navigation, Turkey Hunting Exposition, Wild Pig Clinics, Big Game Clinics, Upland Game Hunting Clinics, and Waterfowl Hunting and Dog Handling Clinics.

Projected Hunter Education training numbers for FY 2006-07 and FY 2007-08 include:

TOTAL NUMBER OF PERSONS TRAINED (Includes those who passed or failed)	23,000
TOTAL NUMBER VOLUNTEERS PARTICIPATING	875
TOTAL NUMERS OF VOLUNTEER HOURS	21,000
TOTAL NUMBER OF HUNTER EDUCATION CLASSES	2,300
TOTAL NUMBER OF FATAL HUNTING RELATED ACCIDENTS	2
TOTAL NUMBER OR NON-FATAL HUNTING RELATED ACCIDENTS	21
TOTAL NUMBER HUNTING RELATED ACCIDENTS	23
ESTIMATED PUBLIC EVENTS ATTEND BY HUNTER EDUCATION STAFF**	200
ESTIMATED NUMBER INDIVIDUALS EXPOSED TO HUNTER EDUCATION*	240,000

* ~30 events a year per four (4) Department Enforcement District = ~120 events statewide X Average event attendance of 2,000 individuals = Estimated Hunter Education exposure each year of 240,000.

** Hunter Education Staff includes Full time staff of seven and volunteer staff of approximately 850

** Number of public events attended does not include number of classes taught entered above

Campaign Against Marijuana Propagation

Increased marijuana cultivation on public lands has inserted Wardens into the Campaign Against Marijuana Propagation (CAMP) mission over the last two years. Marijuana grows negatively impact the environment and water quality: poisons, fertilizers and debris are in each area; wildlife is shot and killed, trapped and poisoned; and water is diverted from streams that support all types of wild and plant life, and humans. The water becomes contaminated with diesel and poisons and is either absorbed by the soil at the site of the grow or becomes run-off into waterways, further affecting the ecosystem for many years into the future.

In addition to the increased patrols of public lands, three Wardens, selected by their peers in law enforcement for their expertise in the woods, are on the CAMP Task Force for the three-month growing season during FY 2006-07. Enforcement's participation in CAMP Pilot projects is beneficial but very time intensive, and will be evaluated after the FY 2006-07 grow season for participation into FY 2007-08.

K-9 Program

Enforcement will develop and implement a K-9 program that will allow Wardens to use specially-trained canines for patrol purposes. In addition to receiving the same basic training as canines in other law enforcement agencies, canines in Enforcement's

program will also be trained in both protection and detection teams with an emphasis on wildlife and habitat. These trained “officers” will provide immeasurable assistance to Wardens in wilderness, urban and marine environments.

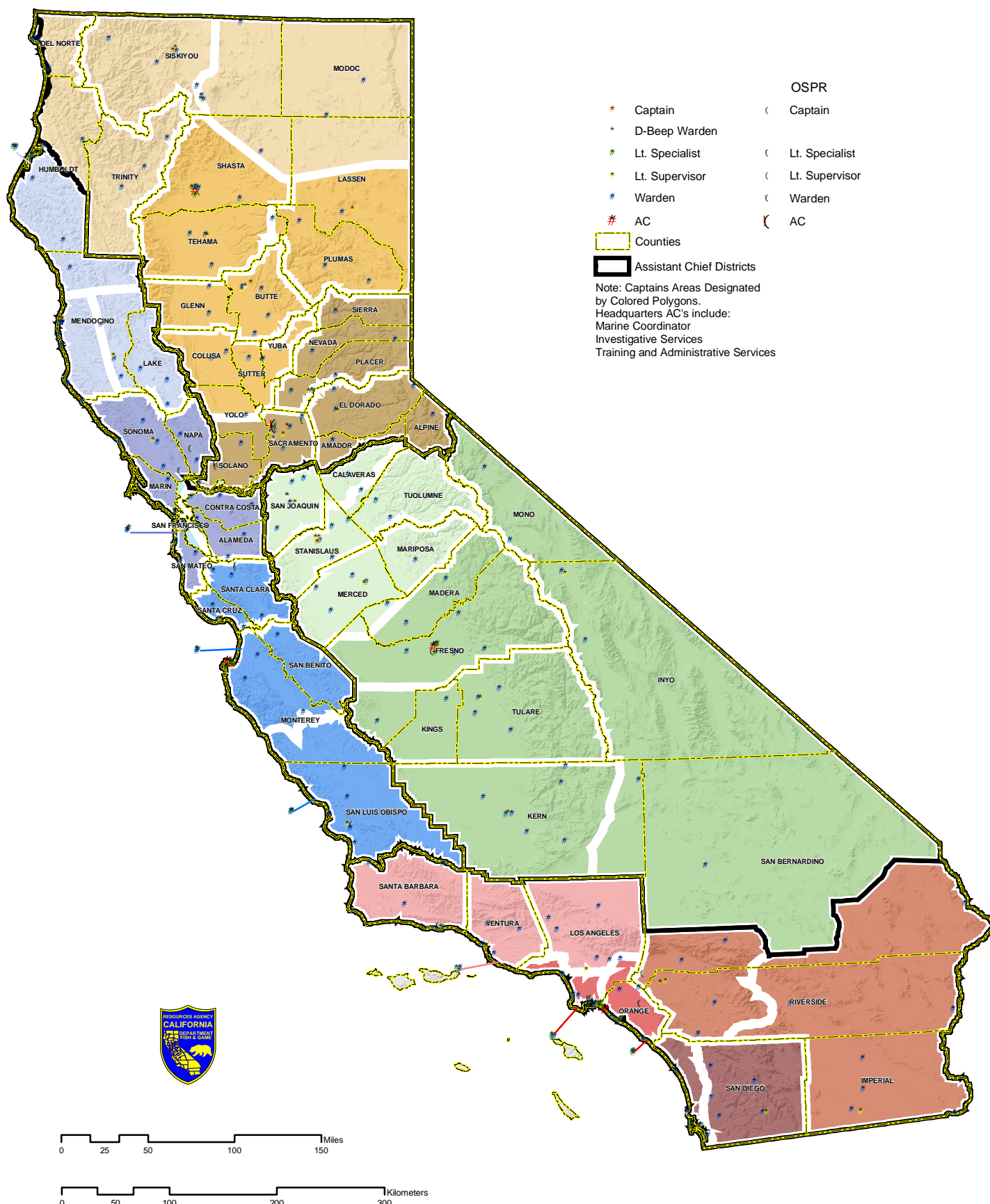
Training

All Enforcement staff will complete the required SIMS/NIMS training in the current year for response to critical incidents. Wardens are an essential asset in disaster response because of their expertise on the water and in the woods. Wardens have proven their importance in these events during recent natural disasters in Texas, Louisiana and Florida. California Wardens play the same role for our state and work directly with the Governor’s Office of Emergency Services and the Department of Homeland Security. Funding for this training is possible through a grant provided through the Department of Homeland Security.

Regulations

Enforcement has recently acquired an active role in the rule making process to assist in the revisions and “clean-up” of the Fish and Game Code. In joining the Department’s existing regulations review team, Enforcement will help achieve biological goals by ensuring proposed statutes are enforceable. Enforcement’s expanded role in this process will result in broader consideration of resource conservation and protection matters, and more comprehensive and understandable regulations for the benefit of our constituents.

ENFORCEMENT BRANCH DEPLOYMENT PLAN 2004



Law Enforcement Citation Summary

2006

Activity	Violations	Percentage	Activity	Violations	Percentage
Abalone	592	4.10%	Hunting, No License	141	0.98%
Angling, No License	5208	36.10%	Baited Pond Hunting	7	0.05%
Black Bass	152	1.05%	Bear Violations	32	0.22%
Clams/bivalves	295	2.04%	Bighorn Sheep	2	0.01%
Other Shellfish	134	0.93%	Deer Violations	226	1.57%
Illegal Method of Take	1004	6.96%	Doves & Pigeons	175	1.21%
Misc. Inland Fishing	1150	7.97%	Waterfowl	95	0.66%
Misc. Ocean Fishing	1006	6.97%	Loaded Firearm	197	1.37%
Salmon	569	3.94%	Mountain Lion	13	0.09%
Striped Bass	854	5.92%	Pheasant	6	0.04%
Trout	276	1.91%	Other Small Game	79	0.55%
Sturgeon	46	0.32%	Spotlighting	47	0.33%
Sport Fishing Subtotal	11286	78.23%	Trespass 2016-2018	122	0.85%
Commercial Abalone	6	0.04%	Trespass, Title 14	144	1.00%
Commercial Lobster	10	0.07%	Misc. Hunting	390	2.70%
Commercial Fishing	100	0.69%	Protected Species	57	0.40%
Commercial License	46	0.32%	Hunting Subtotal	1733	12.01%
Commercial Records	67	0.46%	Trapping	2	0.01%
Commercial Nets	4	0.03%	Litter	238	1.65%
Commercial Subtotal	233	1.62%	Falconry	17	0.12%
Stream Obstruction	22	0.15%	Wildlife area violation	19	0.13%
Pollution	242	1.68%	Other	68	0.47%
FG Code 1601-1603	133	0.92%			0.00%
Misc. Non-hunting	434	3.01%			0.00%
Misc. Subtotal	831	5.76%	Trap+Litter+Falconry	344	2.38%
Total Citations	12224		Total Violations	14427	
Contacts	315288				
Warnings	54954		District Summaries	Citations	Percentage
Assist Other LE	3776		OSPR	587	4.80%
Federal Cases	55		Northern	2685	21.96%
Penal Code/Other Code	529		North Coast	2209	18.07%
City/County Ordinances	39		Central	2086	17.06%
Felonies	65		Southern	2993	24.48%
Other	98		DBEEP/HQ	1456	11.91%
Percent of Contacts Warned		17.43%	Percent of Contacts Cited		4.58%
Month	Citations	Percentage	Month	Citations	Percentage
January	1042	8.52%	July	1782	14.58%
February	1115	9.12%	August	1616	13.22%
March	826	6.76%	September	1531	12.52%
April	989	8.09%	October		0.00%
May	1714	14.02%	November		0.00%
June	1701	13.92%	December		0.00%

Item 3600-001-0001 Department of Fish and Game

2. Interim Reporting on Select Key Activities.

On or before January 10, 2007, Department shall provide a report to the Legislature (including budget and fiscal committees from both houses) on the budgeted activities for 2006-07 and 2007-08 the following program areas: (1) Department's enforcement program, (2) Marine Division, (3) land management and operations, (4) California Environmental Quality Act (CEQA) and Section 1600 program activities, and (5) conservation planning activities. For each of these activities, the department shall include a description of the program, an estimate of the budgeted resources dedicated to the program in 2006-07 and 2007-08, and a discussion of the key, measurable objectives of the programs for 2006-07 and 2007-08.

DEPARTMENT RESPONSE:

FY 2006-07 -- Marine Region Program

PROGRAM DESCRIPTION

The Marine Region is responsible for protecting and managing California's marine resources under the authority of laws and regulations created by the State Legislature, the Fish and Game Commission (Commission), and the Pacific Fishery Management Council (PFMC). It was established in November 1997, as an outgrowth of planning actions taken by the Department of Fish and Game (Department) in the mid-1990s to increase its effectiveness. In addition to a new consolidation of programs, we have adopted a management approach that takes a broader perspective relative to resource issues and problems. This ecosystem approach considers the values of entire biological communities and habitats, as well as the needs of the public, while ensuring a healthy marine environment. It involves field staff with various areas of expertise and considers the marine environment on a statewide basis. This approach is different from traditional State marine resources management, which has focused on individual species or fisheries and has been limited in involvement of all entities with an interest and a stake in the future of California's marine resources.

Much of the Marine Region's focus for the foreseeable future will be on implementing the provisions of the Marine Life Protection Act (MLPA) and Marine Life Management Act (MLMA). In addition, we will devote resources to discharging our responsibility as the trustee of the State's marine fish and wildlife resources while working in the habitat conservation arena. One of the critical needs for accomplishing all of these goals is having adequate, scientifically sound data.

Good fisheries management has always relied on data about the health of targeted stocks. However, additional information is needed regarding marine ecology, essential habitats, and natural processes that affect fish populations, as well as the interactions between different species complexes and the fisheries that pursue them. Without complete *fisheries dependent* data, uncertainties in the amount of fish caught annually can lead to premature fishery closure, or worse, unexpected and potentially significant declines in fish stocks. Without *fisheries independent* data on both the status of populations and the habitats they depend upon, uncertainties in stock status and environmental impacts may lead to errors in management decisions. In addition, it is critical that management decisions are monitored for effectiveness. Therefore, it will be a priority of the Marine Region that essential data are collected, analyzed, and applied to the decision making process for FY 2006-07 as well as FY 2007-08. This priority is clearly reflected in our current organizational structure, program and project descriptions and work plans which were used to generate our list of key, measurable (planned) objectives for FY 2006-07 and FY 2007-08.

The following background information regarding the MLPA and MLMA is provided to better frame how the Marine Region will be allocating its budgeted resources for FY 2006-07 and FY 2007-08.

Marine Life Protection Act

The MLPA mandates "that there is a need to reexamine and redesign California's Marine Protected Areas (MPA) system to increase its coherence and its effectiveness at protecting the state's marine life, habitat, and ecosystems" (Fish and Game Code §2853). The MLPA requires that the Department prepare and the Commission adopt a Master Plan to guide the implementation of a Marine Life Protection Program. The Department, as a preliminary step, prepared a Master Plan Framework, including most parts of the Master Plan but not specific recommendations on the location, type, and number of MPAs. In August 2005, the Commission adopted the Master Plan Framework prepared by the Department. The Master Plan Framework sets forth the tasks and processes required to fully implement the MLPA.

On August 15, 2006, the Commission selected a preferred alternative network of marine protected areas along the central coast of California. The next steps for implementing the MLPA are to: 1) finalize the designation process in the central coast region; 2) monitor, enforce, and manage the central coast MPA network; and 3) continue the MLPA implementation process in the other regions of California.

The adopted MLPA Master Plan recommends dividing the state into five regions to facilitate implementation. As discussed above, the Commission selected a preferred

alternative for MPAs within the central coast on August 15, 2006. As of this writing, the Commission is considering which area of the state will be identified as the next study region.

The MLPA implementation planning process for each region of the state will require both Department staff and contracted support for various technical and scientific roles. The Department has assigned 11 positions to directly assist in this regional planning process. All of the funds included in the proposed budget for our MPAs Project will help inform the Commission's decision as well as the planning process itself.

Immediately after the August 15, 2006 Commission decision to select a preferred alternative for an MPA network along the central coast, the Department began preparing the documents required to adopt regulations necessary to implement that decision. The Department also initiated an environmental review pursuant to the California Environmental Quality Act (CEQA). The Department anticipates that both of these processes will be completed by spring 2007. As of this writing, the Department expects to release the draft regulations, Initial Statement of Reasons for Regulatory Action, and the draft CEQA environmental impact report (EIR) in mid-October and early-November 2006. The Commission expects to take testimony on these documents in winter 2006 and to certify the CEQA document and adopt regulations in the winter/spring of 2007.

Once the establishment of the central coast MPA network is finalized, it will be necessary to monitor MPA effectiveness and enforce the new MPA restrictions. The PFMC and the Department believe that it is critical to obtain information on ecology, habitat, and other natural processes, and on socioeconomic indicators as part of MLPA implementation. This information is necessary to determine over time, if the selected MPA networks are fulfilling the goals envisioned in the MLPA.

The most pressing need is for baseline monitoring of MPAs along California's central coast. This baseline monitoring will provide a snapshot of conditions prior to the establishment of the MPAs. As monitoring continues, changes within the MPAs may be compared to this baseline information. The budget identifies \$2.275 million for this baseline monitoring, an estimate based on the work of an MLPA baseline science monitoring panel established specifically for this purpose. The goal is to conduct this baseline monitoring concurrent with the expected implementation of the central coast MPA network.

After the baseline monitoring is completed, ongoing monitoring will also need to be conducted. Ongoing monitoring will not only help determine how well the selected MPA network is fulfilling the MLPA goals, it will inform the ongoing adaptive management process.

Department Marine Region staff performs a variety of duties and are not specifically assigned to MLPA monitoring or other broad management frameworks like the MLMA. Rather, Marine Region staff is assigned to a variety of projects within a few broad

programs. Overall, the Department has assigned 79 positions to ongoing monitoring of marine resources. Of these 79 positions, 32 are from the augmentation provided in the FY 2006-07 budget and many of them will be involved in the future monitoring required for the central coast. In 2007, the Council and the Department will work closely with the federal government, academic and research institutions, commercial fishers, recreational anglers, and the non-governmental organizations (NGO) community to design and implement an ongoing monitoring plan for the central coast.

Another key component of this program is enforcement of the related regulations. The Department's Law Enforcement Division staff is charged with enforcing marine resource management laws and regulations over an area encompassing approximately 1,100 miles of coastline. Department staff also provides enforcement of federal laws and regulations within state waters and in federal waters. Enforcement duties include all commercial and sport fishing statutes and regulations, all Fish and Game Code and Title 14, California Code of Regulations restrictions, marine water pollution incidents, homeland security, and general public safety. General fishing regulations and other restrictions apply within MPAs as well as specific MPA restrictions. The Department shares jurisdiction for federal regulations including the Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act, the Marine Mammal Protection Act, and the Lacey Act. (Specific information regarding the Department's enforcement efforts relative to the marine environment can be found in the Enforcement Program section of this Supplemental Report.)

KEY MEASURABLE OBJECTIVES

A great deal of information and resources are needed to support the implementation of the MLPA on a statewide basis. The Marine Region Program has been reorganized and the additional resources we have in FY 2006-07 are allocated in a way that will help the Department implement proposed new MPAs in the central California coast as well as continue MLPA implementation in subsequent regions over the next five years. Our efforts for FY 2006-07 and FY 2007-08 will focus on:

- **Baseline Monitoring**
 - The MLPA specifically calls for monitoring and research within MPAs.
 - Baseline data are necessary to determine whether MPAs are effective and to help support ongoing adaptive management of MPAs.
 - In order to move forward with an ecosystem approach to management, it is important to understand the effects of MPAs on the biology and ecology of the biota within and adjacent to the MPA boundaries.
 - Reference reserves may over time help to reveal the effects of fishing on the ecosystem, by providing a comparison of un-fished to fished habitats.

- Habitat Mapping
 - Specific information on benthic zone (ocean bottom) habitats is necessary both to plan and design MPA networks and to monitor those networks once implemented. Benthic habitat mapping will provide the detailed data necessary to determine substrate types, depths, and complexity of habitats.
 - An important early step in moving forward with ecosystem management is to identify, classify, and catalog existing habitat. In the absence of this information, it is difficult or impossible to determine how the ecosystem functions as a whole and what the overall impacts of fishing are to the ecosystem.
- Fishery-Independent Surveys
 - Systematic surveys such as the SCUBA, remote operations vehicle (ROV), and fish trapping proposals provide adult and juvenile information on relative abundance, species interactions and associations, habitat preference, distribution, and size composition of numerous stocks. When tracked over time, this kind of information may provide managers with an indication of whether stocks are increasing or decreasing, and whether the management measures that have been employed are achieving their intended conservation objectives. These surveys help provide information on the status of populations and species composition in specific areas needed for MLPA implementation and planning.
 - Another type of proposed fishery-independent survey is for ichthyoplankton, which measures the spawning output from many different species at the same time. This provides information on growth and survival at the youngest life stages, and also provides an indication of the abundance of the female spawning biomass that produced the planktonic offspring. As with the case of adult and juvenile survey data, the ichthyoplankton survey data may be used to help determine MPA effectiveness.
- Fishery-Dependent Data Collection
 - Better access to data from logbooks and data system evaluation will help to provide more accurate, precise, and timely data on fishing activities, which is crucial to effective fishery management. This information is critical to the MLPA implementation process to help determine both impacts to fisheries from MPAs and to determine locations where stocks may have been impacted by fishing and benefit from MPA protection.
 - The proposed allocation of resources to this effort will help eliminate bottlenecks in capturing, editing, and disseminating a large volume of fishery data from existing sources, especially logbooks.

- Support for MLPA Planning
 - Certain types of expertise not found within the Department are necessary to the MLPA implementation and planning process.
 - External, neutral facilitation is necessary for the stakeholder involvement process as described by the MLPA Draft Master Plan and adopted Master Plan Framework. Neutral facilitation enhances both the process and products from stakeholder working groups.
 - Other scientific expertise can be contracted to provide specific time-sensitive products that the Department may not be able to develop on its own.
 - New funds will support some of the preliminary data collection for the MLPA process in the next region, focusing on needed socioeconomic and ecological data.
- Research Vessel Operations
 - Fishery-independent surveys can only be accomplished with vessel operations that are dedicated to scientific research. Therefore, it is crucial that vessels be available to provide suitable platforms to accomplish these activities. We are proposing to fund additional research vessel operations to help insure that the needed maintenance is performed and equipment is procured to allow the survey work to take place. These surveys are a cornerstone of MPA monitoring.
- Programmatic Support and Infrastructure
 - Proposed support and infrastructure expenditures will provide the necessary physical equipment to address the MLPA implementation and planning needs along with the objective of monitoring and evaluating MPAs. In addition, we are proposing to purchase computers and other equipment to enhance the Department's capability to acquire necessary data, maintain databases, and provide input into both stakeholder and Commission processes.

Additional project information for MLPA efforts is incorporated in the attached Marine Region Program Descriptions and Key Measurable (Planned) Objectives).

Marine Life Management Act

The Marine Life Management Act (MLMA), which became law on January 1, 1999, opened a new era in the management and conservation of California's marine living resources. In fashioning the MLMA, which was introduced as AB 1241 by Assemblyman Fred Keeley, the Legislature drew upon years of experience in California and elsewhere in the United States and the world.

The Act includes a number of innovative features:

- The MLMA applies not only to fish and shellfish taken by commercial and recreational fishermen, but to all marine wildlife.
- Rather than assuming that exploitation should continue until damage has become clear, the MLMA shifts the burden of proof toward demonstrating that fisheries and other activities are sustainable.
- Through the MLMA, the Legislature delegates greater management authority to the Commission and the Department.
- Rather than focusing on single fisheries management, the MLMA requires an ecosystem perspective including the whole environment.
- The MLMA strongly emphasizes science-based management developed with the help of all those interested in California's marine resources.

A central tenet of the MLMA is that management decisions are to be based on sound science and other relevant information. In order to accomplish the MLMA guiding principle of employing an ecosystem approach to achieving sustainable fisheries, the MLMA identifies the acquisition of essential fishery information (EFI) as the way that the best available scientific information will be developed and brought into the process of making management decisions. EFI includes the biology of the fish, population status and trends, fishing effort, catch levels, impacts of fishing, ecological relationships, habitat information, and other environmental information. The MLMA calls on the Department to collect EFI for all fisheries that are managed by the state. Consequently, the MLMA promotes general research on marine ecosystems for use in management decisions.

The MLMA also mandates that the state initiate a comprehensive, ecosystem-based approach to fisheries management through the development of fishery management plans (FMPs). The ultimate goal, as mandated by the MLMA, is to create FMPs for all essential stocks. The Act further mandates that in the absence of strong supporting data, a precautionary approach should be used to manage our state marine fisheries. However, the adoption of new FMPs is not a prerequisite for implementing the general approach to science-based management that is required by the MLMA.

The MLMA directs the Department to collect and analyze fishery data for use in implementing management strategies. To accomplish this broad and overarching mandate, very few of the actions included in this work plan are directed toward completing any particular FMP. To avoid duplication of effort and achieve the maximum return on research activities, rarely are data collection projects species specific, especially when they are designed according to the ecosystem-based approach to management that is prescribed by the MLMA. Consequently, this work plan focuses on collecting much needed baseline data for a number of stocks and habitats, which will directly enable the state to move forward with developing the necessary EFI, improving the scientific basis for management decisions. Activities outlined in this work plan will

also make significant progress towards fulfilling the research and data needs of existing and future FMPs.

The fishery management system established by the MLMA is being implemented stepwise for four sets of fisheries. Following is a summary of actions taken by the Department to implement the MLMA for each of these groups.

1. The nearshore finfish fishery and the white seabass fishery were specified in the MLMA as the first to have FMPs developed and adopted for management.
 - The Department prepared a Nearshore FMP which was adopted by the Commission in August, 2002. Since that time, the Commission and Pacific Fishery Management Council (PFMC) have used it to provide a framework for managing California's nearshore fisheries.
 - The pre-existing white seabass FMP was amended to comply with the MLMA, and the Commission adopted the revised FMP in 2001. The Western States (WS) FMP uses a framework plan approach for managing the white seabass fishery. This enables the adjustment of management measures, within the scope and criteria established by the FMP and implementing regulations, without the need for amending the FMP.
2. Fisheries for which the Commission held some management authority before January 1, 1999.
 - The MLMA Master Plan, adopted in 2001, provides a framework for accomplishing this mandate, setting priorities for the next fisheries for which FMPs will be drafted.
 - A Market Squid FMP was adopted in 2004.
 - An Abalone Recovery and Management Plan (ARMP) was adopted in 2005.
3. Emerging and growing fisheries that are not currently subject to specific regulation.
 - The Marine Region has recently reorganized to establish a new project that deals specifically with emerging fisheries managed by the state, such as Tanner crab.
4. Commercial fisheries for which there is no statutory delegation of authority to the Commission and the Department. (In the case of these fisheries, the Department may prepare and the Commission may adopt, an FMP, but that plan cannot be implemented without a further delegation of authority through the legislative process.)
 - These fisheries have not been a priority for Department action.

A great deal of information and resources are needed to support the completion of EFI for science-based management, as well as to address the data gaps highlighted in the already-completed FMPs for nearshore, white seabass, squid, and abalone. The data collection we are proposing will help the Department make significant progress to directly address EFI needs. This will ensure the Department will not have to wait for, or rely upon, other agency or academic scientists to provide the underlying research and analyses. Proposed project activities will enhance EFI in several key areas, which in turn will help to insure that California's fisheries are managed for long-term sustainability.

- Fishery-Independent Surveys
 - We will conduct systematic surveys such as the SCUBA, ROV, and fish trapping to provide adult and juvenile information on relative abundance, species interactions and associations, habitat preference, distribution, and size composition of numerous stocks. When tracked over time, this kind of information may provide managers with an indication of whether stocks are increasing or decreasing, and whether the management measures that have been employed are achieving their intended conservation objectives. These surveys are one source of information on the effects of fishing on habitat, which is an MLMA objective. Fishery-independent time series data for adults and juveniles are also important for standard stock assessment models for individual species.
 - Another type of fishery-independent survey we will begin implementing is for ichthyoplankton, which measures the spawning output from many different species at the same time. This provides information on growth and survival at the youngest life stages, and also provides an indication of the abundance of the female spawning biomass that produced the planktonic offspring. As with the case of adult and juvenile survey data, the ichthyoplankton survey data are often used as inputs for integrated stock assessment models.
- Baseline Monitoring
 - In order to move forward with an ecosystem approach to management, it is important to understand the biological and ecological effects of MPAs on the biota within and adjacent to the MPA boundaries.
 - Reference reserves may, over time, help to reveal the effects of fishing on the ecosystem by providing a comparison of un-fished-to-fished habitats.
 - Baseline data will also provide information on individual species—both exploited and unexploited—so that future activities may be more effectively evaluated, such as the possible development of a new fishery.
 - Baseline data may also help to provide the inputs for future stock assessments of currently un-assessed species.
 - Finally, the MLMA calls for socio-economic considerations in decision-making, and the baseline socio-economic data on MPAs will help address this issue.

Stock Assessments

- Integrated stock assessments for individual species provide valuable information to managers on the current abundance of a stock and the amount of fishing that the stock can safely support. This is an established and accepted way to provide for sustainable fisheries, and the proposed work will significantly add to the number of assessed stocks in California waters. These assessments are based on computer models that simultaneously analyze all available information on a population to provide the best single answer on how the stock abundance has changed through time in response to fishing pressure. This kind of information informs many fishery management decisions at both the state and federal levels.
- Habitat Mapping
 - An important early step in moving forward with ecosystem management is to identify, classify, and catalog existing habitat. In the absence of this information, it is difficult or impossible to determine how the ecosystem functions as a whole and what the overall impacts of fishing are to the ecosystem.
- Fishery-Dependent Data Collection
 - Better access to data from logbooks and data system evaluation will help to provide more accurate, precise, and timely data on fishing activities, which is crucial to effective fishery management. This information allows managers to insure that key regulations, such as overall catch limits, are being observed and enforced. Also, the MLMA calls for monitoring the level of by-catch and its effect on other fisheries, which can only be accomplished through effective fishery data collection and the availability of data from sources other than landings, such as from logbooks. Finally, important biological information on the size, age, and sex composition of the catch is provided through these proposed activities.
 - Our proposed project activities will help eliminate bottlenecks in capturing, editing, and disseminating a large volume of fishery data from existing sources, especially logbooks.
 - Improved field data collection will provide better geographic and temporal coverage of fishing activities, ultimately providing managers with insights into poorly-sampled secondary and tertiary activities such as night-time fishing and trips that originate from private marinas. These activities currently are significant sources of uncertainty and imprecision in the overall catch estimates.
- Research Vessel Operations
 - Fishery-independent surveys can only be accomplished with vessel operations that are dedicated to scientific research. Therefore, it is crucial that vessels be available to provide suitable platforms to accomplish

these activities. We are proposing to fund additional research vessel operations to help insure that the needed maintenance is performed and equipment is procured to allow the survey work to take place.

- Programmatic Support and Infrastructure
 - Proposed support and infrastructure expenditures will provide the necessary physical equipment to address the MLMA objective of monitoring and evaluating management actions. The proposed purchase of computers and other equipment will enhance the Department's capability to acquire EFI, maintain databases, and conduct sophisticated modeling analyses such as stock assessments.

The following specific activities and expenditures will directly address some of the EFI research and data needs that have been identified in the existing nearshore, white seabass, and market squid FMPs, as well as the Abalone Recovery and Management Plan.

- Nearshore FMP research and data needs will be met by:
 - Nearshore habitat mapping using sonar, ROV video transects, and novel imaging technologies for spatially specific information on habitat
 - Developing geo-referenced databases
 - Conducting ROV, scuba, and experimental fishing studies to acquire spatially specific information on biomass, density, abundance, age structure, recruitment, life history, and ecological information
 - Improving port sampling protocols for more accurate sport and commercial catch information
 - Improving CPFV and commercial logbook systems for more useful information on catch composition and location
 - Conducting socio-economic studies to determine resource demand, costs-of-production, and the contribution of the commercial and recreational fisheries to local economies
- White seabass FMP research and data needs will be met by:
 - Determining accurate estimates of by-catch
 - Moving toward a ecosystem-based management approach
 - Expanding socioeconomic data collection and analyses
- Market squid FMP research and data needs will be met by:
 - Maintaining and improving the market squid logbook program for more timely data reporting
 - Maintaining the port sampling program and improving the estimates of by-catch

- Using fishery-independent surveys to evaluate stock structure, distribution, and abundance which will provide the basis for future science-based management strategies
- Utilizing a ROV to characterize market squid spawning habitat, including the depth and temperature where egg cases are deposited as well as to develop an index of egg case abundance
- Abalone Recovery and Management Plan research and data needs will be met by:
 - Collecting management-related EFI through diver surveys
 - Collecting recovery-related data through exploratory and recovery

Additional project information for MLMA efforts is incorporated in the attached Marine Region Program Descriptions and Key Measurable (Planned) Objectives).

Marine Major Programs

As noted above, the MLPA and MLMA are two major initiatives for the Marine Region. To enable the Marine Region to be more effective, inclusive, comprehensive and collaborative in all marine management activities, the Department recently reorganized the Marine Region into five major programs:

1. Fisheries Management-State/Federal Managed Species
2. Fisheries Management-State Managed Species
3. Habitat Conservation
4. Resource Assessment
5. Administration and License Sales

In addition, the Marine Region's organizational structure has been simplified to make it easier for the Legislature, constituents and the general public to understand the activities and budget of the Marine Region, where the resources are allocated, and what the Marine Region is able to accomplish each fiscal year. An organizational chart that displays the allocation of current resources as well as the significant new resources received in this fiscal year's augmentation is attached. (Reference Attachment A)

The Marine Region's five major programs are described in more detail on a project-by-project basis along with a discussion of the budgeted resources as well as the key measurable (planned) objectives for FY 2006-07 and FY 2007-08, for each project. (Reference Attachment B)

BUDGETED RESOURCES

The total augmentation of resources for the Marine Region includes 57.75 positions and \$19,580,000. The specific allocation of these resources is included in the attached Marine Region Program Descriptions and Key Measurable (Planned) Objectives. (Reference Attachment B)

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Fisheries Management - State/Federal Managed Species

This program supports management activities affecting California and California fishermen under federal and state jurisdiction through the Pacific Fishery Management Council (PFMC). Staff collects, analyzes and reports stock assessment and other fishery-related data necessary to manage California's fisheries resources on a sustainable basis, taking into account associated resources and the habitats upon which they depend. The mixed international and national jurisdiction of these fisheries dictates the Department work closely with other Pacific states and federal agencies to insure effective management. Staff also assists in regulation development for use in the Fish and Game Commission's (Commission) regulatory process.

Project: Coastal Pelagic Species / Highly Migratory Species Management

This project collects, analyzes and reports stock assessment data necessary to manage California's Coastal Pelagic Species (CPS) and Highly Migratory Species (HMS). Some project staff participate on the PFMC's CPS and HMS multi-agency management teams.

The primary CPS species include two federally managed species, Pacific sardine and Pacific mackerel; and one State managed species, market squid. In order to coordinate management of these species the Department must maintain and enhance strong working relationships with researchers and other agencies working on CPS including National Oceanic and Atmospheric Administration Fisheries and PFMC. Under State management, this program implements the Market Squid Fishery Management Plan (MSFMP) which collects fisheries dependent data to assess fishery impacts to the market squid resource and participates in research (including industry sponsored efforts) to increase our understanding of squid biology.

The primary HMS species include the tunas, swordfish and sharks. The project provides information, analyses, and recommendations necessary to manage California's HMS fisheries. The project also provides technical assistance to the PFMC, the National Marine Fisheries Service (NMFS), other federal and state agencies, tribal governments, and constituents on Pacific Coast HMS stocks.

Budgeted Resources Dedicated to the Project: This project includes 11 positions and a Personal Services budget of \$730,229.

Key Measurable (Planned) Objectives for FY 2006-07: For CPS, the primary objective in FY 2006-07 will be to complete a formal review of the market squid logbook program which was initiated in 1999 in addition to collecting data and providing these data for stock assessment activities.

- Technical report of the analysis of market squid fishery logbook data from 1999 to 2006, including compliance/fishery complexities.
- White paper on life history changes in the California market squid population: correlations with fishery and environmental factors from 1948 to 2006.
- White paper on the description of the CPS Fishery since the resurgence of sardines.
- Assist in preparation of sardine and mackerel stock assessments and Stock Assessment and Fishery Evaluation Reports to the PFMC.
- Prepare a work plan for fisheries independent squid research that identifies both short term and long term research priorities to be conducted by the Department as well as collaboratively with the squid industry.
- Hire and train an Associate Biologist and a Biologist. The Associate Biologist will assist in the preparation of the fisheries independent squid research work plan. The Biologist will assist in the preparation of the description of the CPS Fishery since the resurgence of sardines. The Associate Biologist and Biologist will also assist in the compilation of the documentation on the HMS fisheries in California including logbook information, changes in legislation and regulations, and assessment methods.

The primary objective of HMS workload for FY 2006-07 is directly related to compliance of state and federal fisheries legislation and implementation of the federal HMS FMP.

- Assist in the preparation of the Stock Assessment and Fishery Evaluation (SAFE) Report for HMS including a description for California's commercial and recreation fisheries.
- Prepare a review of the recreational daily bag limits for albacore and bluefin tunas. Contribute in development of alternatives for entire scope of routine measures including official commercial passenger fishing vessel (CPFV) identification and boundary change to sea turtle conservation area off the state of Oregon.
- Compile all current documentation on the HMS fisheries in California including logbook information, changes in legislation and regulations, and assessment methods.

Key Measurable (Planned) Objectives for FY 2007-08:

- Assist in preparation of sardine and mackerel stock assessments and Stock Assessment and Fishery Evaluation Reports to the PFMC.

- Implement fisheries independent squid research priorities to be conducted by the Department as well as collaboratively with the squid industry. This may include a large-scale ichthyoplankton survey designed to collect and analyze squid para-larvae distribution and abundance and evaluate whether it can be used as a management tool to monitor squid resource abundance.
- Assist in the preparation of the Stock Assessment and Fishery Evaluation (SAFE) Report for HMS including a description for California's commercial and recreation fisheries.
- Complete the compilation of all current documentation on the HMS fisheries in California including logbook information, changes in legislation and regulations, and assessment methods.
- Newly hired Biologists (1 Associate Biologist, 1 Biologist) will have completed initial training requirements in order to fulfill their job duties as well as participate in fisheries independent squid research. Products will also include completed documentation on the HMS fisheries and the development of the CPS/HMS program work plan for FY 2007-08.

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Fisheries Management – State/Federal Managed Species

This program supports management activities affecting California and California fishermen under federal and state jurisdiction through the Pacific Fishery Management Council (PFMC). Staff collects, analyzes and reports stock assessment and other fishery-related data necessary to manage California's fisheries resources on a sustainable basis, taking into account associated resources and the habitats upon which they depend. The mixed international and national jurisdiction of these fisheries dictates the Department work closely with other Pacific states and federal agencies to ensure effective management. Staff also assists in regulation development for use in the Commission regulatory process.

Project: Groundfish Management

The Department provides annual and in-season management options and recommendations to the Commission and the PFMC for commercial and recreational fisheries based on analysis and review of fishery dependent data. Some project staff conducts stock assessment modeling and participates in assessment reviews. Project biologists serve as California members on the PFMC Groundfish Management Team (GMT) and the Scientific and Statistical Committee to represent the state's unique fisheries. "Groundfish" refers to the 90 species listed in the Federal Groundfish Fishery Management Plan (FGFMP) and primarily includes species in the following groups: rockfishes, sharks, skates, and flatfishes. Implementation of the state Nearshore Fishery Management Plan (NFMP) also coordinated through this project. Sixteen of the nineteen NFMP species are also in the FGFMP.

Budgeted Resources Dedicated to the Project: This project includes 10 permanent positions, one permanent intermittent position and a Personal Services budget of \$858,047.

Key Measurable (Planned) Objectives for FY 2006-07: In order to coordinate management of these species the Department must maintain and enhance strong working relationships with researchers and other agencies working on groundfish including National Oceanic and Atmospheric Administration (NOAA) Fisheries, the Pacific states, and the PFMC. Key outcomes or products expected this fiscal year include:

- Stock assessment for blue rockfish conducted with a full peer review and pre-assessment data workshop.

- Appropriate long term management strategy developed for California sheephead based on recent research results and previous stock assessment results.
- Assembling constituent input from six public meetings, and analyzing recent fishery participation and port-based activity for determining a state perspective for refining federal Trawl Individual Quota alternatives.
- Fishery characterization reports prepared on primary groundfish fisheries for use in management and regulation development.
- Project plan, research needs and timeline developed for moving nearshore species from “data poor” to “data moderate.”
- New Associate Biologist and Biologist hired and trained to focus on California’s recreational groundfish fishery; the Associate will assume the Department’s GMT recreational fishery position at the PFMC and coordinate chili-pepper rockfish research under Exempted Fishing Permits (EFPs). The Biologist will develop proficiency with analysis of the California Recreational Fisheries Survey program.
- Hire and train the other new Biologist to expand the Marine Region website dedicated to groundfish issues and summarize results of a nearshore tagging study.

Key Measurable (Planned) Objectives for FY 2007-08:

- Key background materials prepared for components of Open Access Limitation program specifically addressing recommendations for integrating the state’s Nearshore Fishery Permit programs.
- Develop data and modeling needs for multi-species groundfish stock assessment approach.
- Proposed changes to sport and nearshore commercial fishing regulations for 2009-10 developed for federal National Environmental Protection Agency and Commission process.
- Fish Bulletin on Nearshore Stock Assessments completed.
- Reports completed on chili-pepper rockfish EFP research for the PFMC by the new project Associate Biologist.
- The new Biologist will publish results of the tagging study in a peer-reviewed publication.

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Fisheries Management – State/Federal Managed Species

This program supports management activities affecting California and California fishermen under federal and state jurisdiction through the Pacific Fishery Management Council (PFMC). Staff collects, analyzes and reports stock assessment and other fishery-related data necessary to manage California's fisheries resources on a sustainable basis, taking into account associated resources and the habitats upon which they depend. The mixed international and national jurisdiction of these fisheries dictates the Department work closely with other Pacific states and federal agencies to insure effective management. Staff also assists in regulation development for use in the Commission regulatory process.

Project: Salmon Management

The Salmon Management Project provides fishery-dependent and fishery-independent data used in management of California's ocean salmon fisheries. The project fulfills the Department's obligations on the PFMC's Salmon Technical Team, and produces estimates of ocean harvest, run sizes, ocean abundance, and regulatory impacts. The project also provides technical assistance to the PFMC, the Commission, the National Marine Fisheries Service (NMFS), other federal and state agencies, tribal governments, and constituents on Pacific Coast salmon stocks.

Budgeted Resources Dedicated to the Project: This project includes eight positions and a Personal Services budget of \$618,699.

Key Measurable (Planned) Objectives for FY 2006-07: The project's primary focus is to provide the data and analyses needed for management of California's ocean salmon fisheries. The two new positions added in FY 2006-07 will increase the projects ability to meet management needs. One position will focus on fishery-dependent data collection in the field, and the other will focus on data analysis.

- Collect catch, effort, and biological data needed for management from 20 percent of the salmon landed in California's ocean salmon fisheries.
- Collect the coded-wire tags from 20 percent of commercial and recreational landings, read the tags, and maintain the databases for tag information needed for the Regional Mark Information System (a cooperative program of the west coast states that is managed by the Pacific States Marine Fisheries Commission) by December 31, 2006.

- Estimate commercial and recreational ocean salmon landings, catch composition, fishing effort, and contribution rates of coded-wire tagged salmon for the 2006 ocean salmon fisheries in California, and submit to the PFMC by January 15, 2007.
- Develop and modify fishery models for marine and freshwater salmon harvest management. Submit results to PFMC at dates needed for developing 2007 management options.
- Assist in the development of a fishery management plan amendment to allow a low level of fishing on Klamath Fall Chinook when at low abundance and that does not cause long term harm to the stock.
- Increase expertise of project staff on various fisheries models through in-house training and mentoring. Cross-train staff on data analysis programs and computer programs used to produce estimates.

Key Measurable (Planned) Objectives for FY 2007-08: In addition to the activities and work products in support of the project's primary focus, project staff will participate in a pilot project to test the use of genetic stock identification for in-season management and project staff will assist with the development of a rebuilding plan.

- Collect catch, effort, and biological data needed for management from 20 percent of the salmon landed in California's ocean salmon fisheries.
- Collect the coded-wire tags from 20 percent of commercial and recreational landings, read the tags, and maintain the databases for tag information needed for the Regional Mark Information System (a cooperative program of the west coast states that is managed by the Pacific States Marine Fisheries Commission) by December 31, 2007.
- Estimate commercial and recreational ocean salmon landings, catch composition, fishing effort, and contribution rates of coded-wire tagged salmon for the 2007 ocean salmon fisheries in California, and submit to the PFMC by January 15, 2008.
- Develop and modify fishery models for marine and freshwater salmon harvest management. Submit results to PFMC at dates needed for developing 2008 management options.
- Assist in the development and implementation of genetic stock identification techniques for the use in ocean salmon fishery management.
- Work with the PFMC's Salmon Technical Team to develop a rebuilding plan for Klamath Fall Chinook.

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Fisheries Management: State Managed Species

The State Managed Species program focuses on the ongoing data analysis, data collection, report preparation, and management recommendation processes for marine finfish and invertebrate species managed solely by the State of California. This program's scope includes commercial fishing, recreational fishing, and marine hatchery/aquaculture operations. Projects within the program focus on various species groups and/or habitats primarily found within State waters. This includes Bay and estuarine habitats, invertebrate species, and finfish species. The program also includes a function to review and analyze existing fisheries for potential management changes.

Project: Aquaculture and Bay Management

The Aquaculture and Bay Management Project includes staff directed towards the management of important commercial and recreational fisheries occurring primarily within Bays and Estuaries and who provide input and oversight of marine aquaculture and the white seabass hatchery programs.

Budgeted Resources Dedicated to the Project:

This project includes nine positions and a Personal Services budget of \$675,158.

Key Measurable (Planned) Objectives for FY 2006-07: In FY 2006-07 the Aquaculture and Bay Management project will focus on management of the Pacific herring commercial fishery, white seabass aquaculture, assisting with the preparation of a programmatic EIR for mariculture, and assessing management needs for other bay and estuarine species.

- Biomass assessments for Humboldt Bay/Crescent City Harbor, Tomales Bay, and San Francisco Bay commercial herring fisheries will be completed.
- Develop Pacific Herring quota options for the Fish and Game Commission's (Commission) consideration.
- A Draft Environmental Impact Report (DEIR) will be completed for the White Seabass project and circulated for public comment.
- A White Seabass Enhancement Plan will be completed, and new coastal permits from the Coastal Commission obtained.
- A Draft Programmatic Environmental Impact Report (PEIR) for Aquaculture will be completed and circulated for public comment.
- A Draft Supplemental Environmental Document (DSEIR) for the state herring fisheries will be completed, circulated for public comment, and ratified by the Commission.

- Project staff will identify baseline information needs for each bay statewide, and begin the process for determining how to collect the data. Emphasis will be on bays closest to Marine Protected Areas initially.
- A new position will be dedicated initially to assisting with the preparation of a Programmatic Environmental Impact Report (PEIR) for Aquaculture pursuant to AB 201; a Biologist position currently vacant in the Bodega Bay office, will be filled and will work on managing the herring fishery in Tomales Bay, assist with the San Francisco Bay commercial herring fishery, identify management needs for Tomales Bay and help develop future priorities for the project
- Training for the new biologists would include but not be limited to a) CEQA guidelines training; b) boat handling; c) drafting regulations for the Commission; and d) technical writing.

Key Measurable (Planned) Objectives for FY 2007-08: In FY 2007-08 the project will shift its focus to management of priority species identified in the past fiscal year.

- Biomass assessments for Humboldt Bay/Crescent City Harbor, Tomales Bay, and San Francisco Bay commercial herring fisheries will be completed
- Develop Pacific herring quota options for the Commission's consideration
- Implementation of the recommendations and requirements described in the PEIR for Aquaculture, the White Seabass Enhance Plan, the EIR for White Seabass, and the Final Supplemental Environmental Document (FSEIR) for the Pacific herring fisheries
- Develop a coordination and collaboration plan with other state and federal agencies, industry members, and other Department regions and projects
- Based on baseline information, develop management strategies for priority species
- Start implementing management strategies on some of the priority species identified
- Additional management activities identified in 2006-07 that had not been completed will go forward
- Additional training in writing, data collection techniques and analysis, and communication and presentation skills would benefit the new hires as well as the rest of the Aquaculture and Bay Management staff

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Fisheries Management: State Managed Species

The Fisheries Management: State Managed Species program focuses on the ongoing data analysis, data collection, report preparation, and management recommendation processes for marine finfish and invertebrate species managed solely by the State of California. This program's scope includes commercial fishing, recreational fishing, and marine hatchery/aquaculture operations. Projects within the program focus on various species groups and/or habitats primarily found within State waters. This includes Bay and estuarine habitats, invertebrate species, and finfish species. The program also includes a function to review and analyze existing fisheries for potential management changes.

Project: Invertebrate Management

The Invertebrate Management project includes staff directed towards the management of important commercial and recreational marine invertebrate fisheries occurring primarily in the nearshore environment. The project is also responsible for implementation of the Abalone Recovery and Management Plan (ARMP).

Budgeted Resources Dedicated to the Project: This project includes 11 positions and a Personal Services budget of \$801,222.

Key Measurable (Planned) Objectives for FY 2006-07: In FY 2006-07, the Invertebrate Management project will focus on management of the spiny lobster commercial and recreational fisheries, north coast recreational abalone fishery, and commercial sea urchin fishery. The project will also help to develop potential options for the reopening of an abalone fishery at San Miguel Island. Additionally, the project will review and prioritize other invertebrate fisheries for management changes.

- Re-prioritize invertebrate species in need of management plans within the Master Plan for Fisheries Management Plans (FMPs) prepared pursuant to the Marine Life Management Act (MLMA).
- New staff will focus on planning for a recreational lobster fishery survey to determine level of recreational catch by gear type and mode.
- Manage the north coast recreational abalone fishery
 - Monitor abalone punch card data
- Manage commercial and recreational dungeness crab fisheries
- Coordinate domoic acid testing in pre-season dungeness crab
- Manage commercial sea urchin fishery
- Collect urchin samples from offloading urchin boats

- Monitor sea cucumber fishery logbook data
- Plan potential San Miguel Island Abalone fishery
- Participate in and coordinate Abalone Fishery Advisory Group

Key Measurable (Planned) Objectives for FY 2007-08: In FY 2007-08 the project will shift its focus to management of priority species identified in the past fiscal year, implement any decisions made regarding the potential San Miguel Island abalone fishery, and move forward with recommended management changes in the spiny lobster fisheries.

- Begin preparing data and analyses necessary to prepare new FMPs based on priority list developed in 2006-07
- Implement new recreational lobster fishery survey
- Conduct regulatory process for lobster fishery changes if needed
- Implement San Miguel Island Abalone fishery management plan if advised
- Continue management of sea urchin and sea cucumber fisheries
- Continue management of north coast recreational abalone fishery

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Fisheries Management: State Managed Species

The Fisheries Management State Managed Species (FMSMS) program focuses on the ongoing data analysis, data collection, report preparation, and management recommendation processes for marine finfish and invertebrate species managed solely by the State of California. This program's scope includes commercial fishing, recreational fishing, and marine hatchery/aquaculture operations. Projects within the program focus on various species groups and/or habitats primarily found within State waters. This includes Bay and estuarine habitats, invertebrate species, and finfish species. The program also includes a function to review and analyze existing fisheries for potential management changes.

Project: State Finfish Management

The State Finfish Management project (SFM) includes staff directed towards the management of important commercial and recreational marine finfish managed solely by the State of California. These species occur primarily in the nearshore environment but may range throughout state waters.

Budgeted Resources Dedicated to the Project: This project includes seven permanent positions, one permanent intermittent position and a Personal Services budget of \$442,521.

Key Measurable (Planned) Objectives for FY 2006-07: In FY 2006-07 the SFM project will focus on reviewing priority species with existing fisheries.

- Re-prioritize finfish species listed in the Master Plan for Fisheries Management Plans (FMPs) prepared pursuant to Marine Life Management Act (MLMA)
- Review fishing level and population status of priority species
- Manage existing finfish fisheries and determine if management changes are necessary
- Collect and analyze data necessary to begin preparation of FMPs for the highest priority finfish species
- Train new staff in extracting and analyzing fisheries data from the commercial landings database

Key Measurable (Planned) Objectives for FY 2007-08: In FY 2007-08 the project will shift its focus to management of priority species identified in the past fiscal year and

move forward with recommended management changes in existing fisheries. Staff will begin to collect background information necessary to begin preparation of FMPs for high priority fisheries.

- Begin preparing data and analyses necessary to prepare new FMPs based on priority list developed in 2006-07
- Conduct regulatory process for fishery changes if needed
- Assess multi-year results of the California Recreational Fishery Survey to determine if recent management activities have adequately addressed species concerns and rebuilding goals
- Train staff in the preparation of FMPs and technical writing skills

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Fisheries Management: State Managed Species

The Fisheries Management: State Managed Species program focuses on the ongoing data analysis, data collection, report preparation, and management recommendation processes for marine finfish and invertebrate species managed solely by the State of California. This program's scope includes commercial fishing, recreational fishing, and marine hatchery/aquaculture operations. Projects within the program focus on various species groups and/or habitats primarily found within State waters. This includes Bay and estuarine habitats, invertebrate species, and finfish species. The program also includes a function to review and analyze existing fisheries for potential management changes.

Project: State Fisheries Evaluation

The State Fisheries Evaluation (SFE) project includes staff directed towards evaluating existing fisheries managed solely by the State of California. The project will focus primarily on the California halibut fishery and implementation of the bottom trawl permit program along with prioritizing other state managed fisheries for future review.

Budgeted Resources Dedicated to the Project: This project includes six positions and a Personal Services budget of \$442,521.

Key Measurable (Planned) Objectives for FY 2006-07: In FY 2006-07 the SFE project will focus on implementation of the bottom trawl permit program and assessment of impacts of trawling that presently occurs within State waters.

- Collect fishery-dependent and fishery-independent data associated with state recreational and commercial fisheries, including halibut
- Develop management recommendations for trawl fisheries
- Develop the bottom trawl permit program
- Staff will participate in training for conducting extracts and analyzing commercial and recreational fisheries data and scientific and technical writing.

Key Measurable (Planned) Objectives for FY 2007-08: In FY 2007-08 the project will continue implementation of the bottom trawl permit program and increase its focus on evaluation of other existing state managed fisheries.

- Using priorities provided by the State Finfish Management project, begin evaluation of the first priority species
- Fully implement the bottom trawl permit program
- Prepare regulatory documents and support the regulatory process for management changes proposed for the trawl fisheries

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Marine Habitat Conservation

The Marine Habitat Conservation program focuses on the planning, review, and implementation of activities that may impact marine habitats and projects directed at ecosystem based management activities. The program specifically focuses on the implementation of the Marine Life Protection Act (MLPA, Stats. 1999, Ch. 1015) and ongoing marine protected area (MPA) management. The program also oversees the review of environmental impact reports and proposals for projects that may impact the marine environment.

Project: Marine Project Review

The Marine Project Review project includes staff directed towards evaluating, reviewing and commenting on proposals from within and outside the Department. The project has primary responsibility for review of proposals that will potentially impact marine habitats and or water quality. Review includes, but is not limited to; once through cooling at coastal power plants, proposals for new pipelines and other structures on the sea floor, and decommissioning of oil and gas production platforms.

The Marine Project Review Project will:

- Review California Environmental Quality Act (CEQA)/National Environmental Protection Act (NEPA), water quality, and other documents for marine project development proposals along the California coastline.
- Prepare comments and recommendations to lead agencies suggesting mitigation measures for habitat conservation and protection of marine resources.
- Review and provide comments to State Water Quality Control Board on statewide water quality projects.
- Collaborate with other state, federal, and local agencies to identify resource impacts from proposed regulatory programs, projects, and plans, and develop ways to mitigate such impacts.
- Represent the Department on large-scale, long-range habitat planning activities and collaborate on development of measures to protect and maintain fish, plant and wildlife habitats and populations.
- Provide consultation and support for Marine Region and other Department staff.
- Respond to hazardous materials spills and water quality emergencies.

Budgeted Resources Dedicated to the Project: This project includes six positions and a Personal Services budget of \$524,098.

Key Measurable (Planned) Objectives for FY 2006-07:

- Attend pre-project consultation meetings.
- Review environmental documents and, if relevant, prepare comment letters for management signature to lead agencies (number of documents reviewed has averaged 450 per year).
- Participate in regional large scale long-term marine habitat and water quality planning activities.
- Prepare California Environmental Standards Act (CESA) permit documentation for individual projects in consultation with Habitat Conservation Planning Branch (HCPB), (average 4 per year).
- Conduct field investigations of spills and pollution events that threaten marine resources.
- Coordinate with OSPR to review and comment on Ecological Risk Assessments of contaminated sites in or near marine waters, and prepare recommendations for cleanup, restoration, or mitigation for impacts to marine resources.
- Review and participate in Marine Region and internal Department issues such as; write and review of internal Departmental CEQA and functional equivalent documents, Department management plans, grant proposals, and legislative bill and bill amendment analyses.
- Respond to public calls, electronic mailings, and written correspondence for information requests.
- Review and comment on scientific research projects/data resulting in Policy changes/amendments.
- Provide 'biological monitor' training for dredging companies related to the protection of herring population (2 -3 times per year).

Key Measurable (Planned) Objectives for FY 2007-08:

- Attend pre-project consultation meetings.
- Review environmental documents and, if relevant, prepare comment letters for management signature to lead agencies (number of documents reviewed has averaged 450 per year).
- Participate in regional large scale long-term marine habitat and water quality planning activities.
- Prepare CESA permit documentation for individual projects in consultation with HCPB (average 4 per year).
- Conduct field investigations of spills and pollution events that threaten marine resources.
- Coordinate with OSPR to review and comment on Ecological Risk Assessments of contaminated sites in or near marine waters, and prepare recommendations for cleanup, restoration, or mitigation for impacts to marine resources.
- Review and participate in Marine Region and other internal Department issues such as write and review of internal Departmental CEQA and functional equivalent documents, Department management plans, grant proposals, and

- legislative bill and bill amendment analyses.
- Respond to public calls, electronic mailings, and written correspondence for information requests.
- Review and comment on scientific research projects/data resulting in Policy changes/amendments.
- Provide 'biological monitor' training for dredging companies related to the protection of herring population (2 -3 times per year).

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Marine Habitat Conservation

The Marine Habitat Conservation program focuses on the planning, review, and implementation of activities that may impact marine habitats and projects directed at ecosystem based management activities. The program specifically focuses on the implementation of the Marine Life Protection Act (MLPA, Stats. 1999, Ch. 1015) and ongoing marine protected area (MPA) management. The program also oversees the review of environmental impact reports (EIR) and proposals for projects that may impact the marine environment.

Project: Marine Protected Areas

The Marine Protected Areas project includes staff directed towards evaluating, reviewing and developing recommendations for MPAs within State waters. The project has the primary responsibility for planning phases of the MLPA implementation in various study regions. Additionally, the project will assist with implementation of new MPAs in completed study regions and the ongoing review of monitoring data to determine MPA effectiveness and to make recommendations on potential management changes.

Budgeted Resources Dedicated to the Project: This project includes six positions and a Personal Services budget of \$419,263. An additional four positions and \$309,421 in Personal Services dollars are dedicated to MPAs but are located within the Marine Region Management Program. In addition, one position was dedicated to communications focusing on MPA issues.

Planned Work Products for FY 2006-07: In FY 2006-07, the MPAs project will focus its efforts on preparing for and conducting the stakeholder process to plan for MPAs in the second study region. Staff will assist with implementation of any new MPAs adopted for the first study region in the central California coast.

- Staff will support the regulatory and environmental review processes for the central coast study region.
- Staff will complete monitoring and management plans for the central coast study region.
- Staff will prepare geographical information system (GIS) data layers to provide information necessary to the second study region planning process.
- Staff will participate in and assist with convening a stakeholder working group and science advisory team for the second study region.

- Staff will prepare information for, plan, and conduct stakeholder and science team meetings to provide input on potential improvements to existing MPAs in the second study region.
- Staff will coordinate with external staff and contractors to effectively use outside funding and support.
- Staff will participate in training for conducting extracts and analyses of commercial and recreational fishing data, public involvement and conflict resolution, and technical and scientific writing.

Planned Work Products for FY 2007-08: In FY 2007-08 the project will shift its focus to both implementation of MPAs in the Central Coast study region, completion of the planning process and beginning the regulatory process for the second study region, and preparing for the third study region.

- Staff will coordinate implementation of monitoring and management plans for the Central Coast study region.
- Staff will prepare regulatory and environmental review documents as directed by the Commission for the second study region.
- Staff will prepare geographical information system (GIS) data layers to provide information necessary to the third study region planning process.
- Staff will participate in and assist with convening a stakeholder working group and science advisory team for the third study region.
- Staff will prepare information for and undertake preliminary planning for stakeholder and science team meetings to provide input on potential improvements to existing MPAs in the third study region.
- Staff will coordinate with external staff and contractors to effectively use outside funding and support.

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Marine Resource Assessment

The Marine Resource Assessment Program (MRAP) gathers and disseminates fundamental information on key marine species and associated habitats, and the fisheries dependent on them. Information developed by the MRAP is provided to Department managers, Marine Region fishery management units, and other state and federal agencies to support fishery management decision making. The MRAP further supports fishery management efforts by:

- Developing, maintaining, and sharing marine resource data bases;
- Providing bio-statistical and socio-economic valuation services;
- Maintaining and providing research vessels;
- Developing and testing fishery resource assessment tools and methods; and
- Coordinating dive safety training and certification services to the Department as a whole.

The MRAP is made up of seven projects and many subprojects. The first four projects described below are ongoing (existing) projects that received little if any new funding or positions in 2006-07. Projects 5 through 7 are projects that are new projects or substantially enhanced based on new funding provided in FY 2006-07.

Project Descriptions:

Project 1: Recreational Fishing Data

Provides support to Recreational Fisheries Information Network (RecFIN) through participation on tri-state committees to determine best methods of gathering, analyzing, and presenting recreational fishery data; supports California Recreational Fisheries Survey (CRFS) through coordinating and collection of data in the field, and statistical review and analyses of methodologies; maintains quality Commercial Passenger Fishing Vessel (CPFV) database and provides data for Department and constituent use; and provides reports as required to support the Department and the Commission regulatory activities related to recreational fishing.

- RecFIN is a cooperative program with the National Marine Fisheries Service (NMFS), Pacific States Marine Fisheries Commission (PSMFC), and the states of Washington, Oregon, and California to gather coordinated information on state

and federal recreational fishing surveys and provides the data to biologists, managers, and the public.

- CRFS is a survey to estimate total fishing effort and catch for marine recreational anglers in California.
- CPFV vessels are commercially registered to take paying passengers on fishing trips. Operators are required to submit a fishing activity log to the Department for each fishing trip.

Budgeted Resources Dedicated to the Project: This project includes six permanent positions, one permanent Intermittent position and a Personal Services budget of \$536,146.

Key Measurable (Planned) Objectives for FY 2006-07: The following are the primary foci and associated planned objectives for 2006-07.

Focus 1: Recreational Fisheries Information Network (RecFIN) Program Support and Collaboration

- Coordinate the Department's work on RecFIN programs.
- Represent California on the RecFIN Technical Committee to set standards for the recreational data on the RecFIN web site to ensure the best science is used and to ensure that the California, Oregon, and Washington data are comparable.
- Represent California on the RecFIN Statistical Subcommittee to analyze and determine best methodologies for catch and effort estimates for the recreational fisheries of California, Oregon, and Washington to assist the Technical Committee.
- Represent California on the RecFIN Data Subcommittee to assist the Technical Committee with data input, retention and output standards for marine recreational survey sample and estimate data.

Focus 2: California Recreational Fisheries Survey (CRFS) Support:

- Coordinate the review of the CRFS to ensure that CRFS data and estimates address management needs and conform to the best available science, and document findings. The review will examine each part of the CRFS: sample design, survey methods, statistical methods, estimation procedures, computer programs, and data and documentation needs.
- Provide field sampling support and documentation of sampling process—2006-07, expect approximately 15,000 anglers to be contacted and 24,000 fish to be observed through the Department lead person's Del Norte and Wine district samplers and San Diego Biologist.
- Provide statistical review of CRFS computer programs to determine accuracy of logic and calculations for total recreational catch.

- Provide statistical analysis of dual frame collection methods to compare methodologies and determine statistical validity.
- Analysis to determine sampling bias and provide recommendations for sampling methodologies to eliminate.
- Develop program to increase sport fishing license point-of-sale angler contact information for use in telephone survey.

Focus 3: Commercial Passenger Fishing Vessel (CPFV) Logbook Database

- Edit historical and current CPFV log data for accuracy.
- Provide Department programs with CPFV log data for state and federal regulation development, publications, and fishery management plan development and provide constituents with data for research.

Focus 4: Environmental Documents - Triennial Ocean Sport Fishing Regulations Changes for 2007 through 2009

- Coordinate and produce updated supplemental program and species fishery data for the Commission sportfishing regulation change cycle.

Focus 5: Scientific Reports

- Provide fishery-based reports to California Cooperative of Fisheries Investigation (CalCOFI), Status of the Fisheries Reports, and scientific journals.

Focus 6: Training Needs

- Sampling and Field Survey Design
- Technical Report Writing

Key Measurable (Planned) Objectives for FY 2007-08: The following are the primary foci and associated planned objectives for 2007-08.

Focus 1: Recreational Fisheries Information Network (RecFIN) Program Support and Collaboration

- Coordinate the Department's work on RecFIN programs.
- Represent California on the RecFIN Technical Committee to set standards for the recreational data on the RecFIN web site to ensure the best science is used and to ensure that the California, Oregon, and Washington data are comparable.
- Represent California on the Statistical Subcommittee to analyze and determine best methodologies to collect recreational fishery data in California, Oregon, and Washington.

- Represent California on the Data Subcommittee to draft a simplified query system, outline a data-user manual, and add any available documentation to the web site.

Focus 2: California Recreational Fisheries Survey (CRFS) Support

- Coordinate the implementation the changes and improvements identified during the review of CRFS in FY 2006-07; coordinate validation studies to determine accuracy and bias of methods including coordination of pilot studies to test alternative methods. Results to be available December 31, 2007.
- Provide field sampling support.
- Provide field sampling opportunities for statistical staff to achieve understanding of how field sampling is conducted and how it relates to data collected.
- Initiate outreach by mail and by field contact with license agents to increase number of contact information for use in fishing effort telephone survey.

Focus 3: Commercial Passenger Fishing Vessel (CPFV) Logbook Database

- Edit historical and current CPFV data for accuracy.
- Provide Department of Fish and Game programs with CPFV data for state and federal regulation development, publications, and fishery management plan development and provide constituents with data for research.
- Initiate field contact with CPFV owners and operators to increase compliance and accuracy of logs required to be sent to Department.

Focus 4: Groundfish Hooking and Mortality Study

- Conduct field work to determine mortality of recreationally-caught groundfish species when hooked and discarded.

Project 2: Marine Fisheries Statistical Unit

The primary goal of the Marine Fisheries Statistical Unit (Unit) is to collect, audit, and process commercial fishery statistics legally required and provided to the Department.

Budgeted Resources Dedicated to the Project: This project includes 10 permanent positions and a Personal Services budget of \$516,030.

Key Measurable (Planned) Objectives for FY 2006-07: The following are the primary foci and associated planned objectives for 2006-07.

Focus 1: Create and maintain commercial Landing Receipt and Commercial Passenger Fishing Vessel (CPFV) database

- Receive, process, and input all landing receipt and CPFV logbook data. Data is manually entered through the Commercial Fisheries Information System (CFIS). Reports are generated and worked by Unit staff to check for data entry and/or licensing errors. The data is placed in a “suspense file” while it is being worked.
- Data is corrected or “edited” by Department Biologists, and PSMFC Technicians, as needed. Corrected data is inserted into the master database files.
- Compliance letters are generated by Unit staff and sent to Fish Businesses who have not complied with Fish and Game Code §8043 in the submittal of their landing data. Staff works closely with the Department Enforcement Division on landing receipt compliance issues. Referrals are made to Enforcement when erroneous data are provided, and follow-up is monitored.

Focus 2: Landing Receipt Books

- Design and print all landing receipt books (and several logbooks). Once printed, the Unit is responsible for the inventory and distribution of all landing receipt books to licensed Fish Businesses, and Department license offices. Related to this task is printing and distribution of postage-paid envelopes for landing receipts and logbook return.

Focus 3: Lobster Log database

- Receive, process, and input all Lobster logbook data received. Data is via the California Fisheries Information System (CFIS). Complete lobster season’s data is sent to the Senior Invertebrate Specialist, with associated lobster logs.

Focus 4: Transportation Receipt database

- Receive, process, and input all Transportation Receipts received, by calendar year. Data is entered into the Transportation Receipt module of the CFIS database.
- Reports are generated and worked by Unit staff to verify data received. Transportation Receipt data is available to the Department Enforcement Division and other enforcement agencies requesting data for compliance issues.

Focus 5: California Commercial Landings for 2006

- This annual report is generated twice a year – in a preliminary and final format. The Unit staff does a series of data quality checks on the data that make up this report. The preliminary data are sent to Department Biologists for review. Biologists review the data and send data corrections to the Unit. After all corrections are received, researched, and input, the final version of this report is produced and distributed. Annual distribution is sent to Department staff, National Oceanic and Atmospheric Administration (NOAA) – National Marine Fisheries Service (NMFS) staff, and depository libraries throughout California.

Focus 6: Reports of landing activity and summarized landing data

- Generate reports of landing activity for DFG Enforcement staff, NMFS Special Agents, other enforcement agencies, courts, environmental firms, private consultants, and the public.
- Consult with the Department's Office of the General Counsel on confidentiality issues in regard to data release and summarization of landing effort.

Focus 7: Update Landing Receipt User's Guide

- Update User's Guide and do a mass mailing to all Fish Businesses in January 2007.

Focus 8: Landings Data Processing System Review

- Form and lead a workgroup representing internal and external marine fisheries statistics stakeholders in early 2007 to review the landings and logbook data processing system and, if appropriate, develop recommendations for system change.
- By July 2007 convey workgroup recommendations to Department managers for review and possible approval.

Key Measurable (Planned) Objectives for FY 2007-08: For Project 2 (Marine Fisheries Statistical Unit) Foci 1 through 7 represents ongoing Department activities and obligations that do not change substantially from year to year. For Focus 8, during 2007-08 the project would begin implementation of the landings data processing system recommendations made by the 2006-07 workgroup and approved by management.

Sub-Project 2a: Socio-economic Valuation (Marine Region Economist)

This project provides economic analyses of California's marine resources, including both descriptive characteristics and impact projections from an economics perspective. This is in support of the State's required regulatory analyses and documentation of proposed legislation, Department management proposals and marine fisheries plans, and documentation for conformation with Federal regulations for species found in State waters. The project (position) performs other ad hoc economic analyses and documentation as needed, for: disaster declarations, Congressional analyses for State's fisheries, and as requested by the Governor's Office, the Fish and Game Commission, the Department of Finance, or the Legislative Analyst's Office.

Budgeted Resources Dedicated to the Project: This project includes one permanent position and a Personal Services budget of \$89,370 which is already included in the total Personal Services budget for Project 2.

Sub-Project 2a - Key Measurable (Planned) Objectives for FY 2006-07:

- California regulatory process, proposed rulemaking economic and fiscal impact analyses and documentation (ongoing)
- Department fiscal impact assessments (ongoing)
- Salmon disaster declaration and assistance program economic analyses (ongoing)
- Federal regulation conformation economic analyses (ongoing)
- Fisheries plans and proposals economic analyses (ongoing)
- MLMA (California's Marine Life Management Act) research on essential fishery information - socioeconomic (Request For Proposals / Invitation For Bid)

Sub-Project 2a - Key Measurable (Planned) Objectives for FY 2007-08:

- California regulatory process, proposed rulemaking economic and fiscal impact analyses and documentation (ongoing)
- Department fiscal impact assessments (ongoing)
- Federal regulation conformation economic analyses (ongoing)
- Fisheries plans and proposals economic analyses (ongoing)
- Attend IMPLAN (Impact Analysis for PLANning) introductory training course (incurs out-of-state travel)

Project 3: Fisheries Independent Resource Assessment - Remote Operated Vehicles (ROV)

MRAP Project 3 has a number of components. The core project, **remote operated vehicle (ROV) surveys**, is currently focused on providing assessments of finfish off

the recently created Marine Protected Areas (MPAs) off the northern Channel Islands in conjunction with the Marine Life Protection Act (MLPA). The project also has a number of independently staffed subprojects **including abalone and related sea urchin assessments** linked to the recently adopted Abalone Recovery and Management Plan (ARMP); a **kelp forest monitoring** Biologist, and support for the **California Cooperative of Oceanic Fisheries Investigations** (CalCOFI).

- **ROV:** The Project's ROV team is developing an important monitoring tool to help assess the effectiveness of MPAs. Project development and sustainability has been complemented by a long-term partnership with Marine Applied Research and Exploration (MARE), The Nature Conservancy, the Ocean Protection Council (OPC), NOAA, and other partners that share Department goals and costs. While currently focused on MPAs and associated finfish and essential habitat, the continued success of ROV-based quantitative methods will provide the basis for developing cost effective sustainable assessments throughout California. This program also provides a model for partnerships and sustainable assessments statewide.
- **Abalone¹, kelp, and artificial reef sub-projects:** Additional areas of focus in our project includes work on abalone assessments mandated by implementation of the Abalone Recovery and Management Plan (ARMP) and one staff member focused on yearly kelp forest and artificial reef based assessments and monitoring. Abalone work under the ARMP has two major components; assessments of recovery in the south and the northern managed fishery. Project staff is assisting the invertebrate management project in primarily SCUBA based assessments of the northern red abalone sport fishery.
- **CalCOFI sub-project:** One of our project staff is involved half-time as one of two Department liaisons to the CalCOFI program. CalCOFI was established in 1949 as a group of scientists & technicians at Scripps Institution of Oceanography (SIO), the National Marine Fisheries Service (NMFS), and the Department to conduct quarterly cruises off California, hold an annual conference, and produce an annual publication. The long time series of measured larval production and physical oceanography maintained by the CalCOFI program provides a foundation for scientists to measure changes in larval recruitment as the climate changes over time.

Budgeted Resources Dedicated to the Project: This project includes seven permanent positions and a Personal Services budget of \$530,015.

¹ Given the likelihood that the ROV project may expand to a state-wide scope and that this sub-project is mostly SCUBA based, it may be shifted to the Fishery Independent SCUBA assessment project.

Key Measurable (Planned) Objectives for FY 2006-07:

ROV project: The ROV team will continue a time series of northern Channel Island MPAs finfish abundance initiated in 2004. In addition, they will join with MARE to further develop methods as part of ongoing research. This program assesses the effectiveness of MPAs and provides this data to managers, partners, and others as to assess the effectiveness of MPAs. Products used for management will be part of the Department's geo-data base, web page, and published journals.

- Continue randomly sampling and post processing fish abundances and habitat and abundances at ten sites on and adjacent to five northern Channel Island MPAs.
 - Integrate 2005 and 2006 MPA survey data into Department's geo-data base for MPA surveys during this and next fiscal year.
 - Write a cruise report.
 - Provide assessment ready data for our partners on the Department's web-page and in a published final report.
- Write operations training manuals in preparation for training new staff in an expanded program.
- Train new post processing staff
- Publish ROV protocols in the Marine Technical Science Journal, fall issue.
 - Present results orally at California World Oceans Conference in August and CalCOFI conference in December.
- Provide our protocols to NOAA and academic partners interested in emulating our work.
- Submit a paper for peer review on sampling design that will allow managers to determine what sampling levels are optimal to manage finfish and at what cost for future surveys.
- Improve precision of quantitative tracking protocols as part of an experiment completed in September of 2006.
- Improve methods to size fish enumerated during ROV surveys to further perfect quantitative protocols.
- Developing and testing new and redundant ROV equipment to ensure sustainable surveys in future years.
 - Design entire system upgrade for 2007-08 upgrade of existing and a new ROV to enhanced standards using Department and OPC grant funds.
 - Upgrade two new enforcement catamarans as added survey platforms for joint ROV assessments and enforcement operations.
- Hire and train 3.5 positions of scientific aid staff for post processing as replacements for permanent staff redirected to other projects in 2005-06.
- Initiate development of post processing lab.

Abalone assessments: Resource assessments of abalone and sea urchins are conducted annually using SCUBA at key sites along the coast in northern California. Eight sites are currently mandated in the ARMP to be surveyed on a tri-annual basis. These surveys are conducted using Department and contract divers from universities. Divers are used to assess the density of animals at heavily fished and lightly fished sites in the heart of the recreational red abalone fishery in northern California. The recreational fishery is managed with multiple measures including no SCUBA, size limits, season closures as well as yearly and daily bag limits. This fishery has approximately 35,000 participants that take an estimated 260,000 red abalone per year².

- Complete first cycle of tri-annual resource assessments of abalone and sea urchins at eight key Index stations in Sonoma and Mendocino Counties. One site remains to be surveyed in 2006-07 to complete the first three year series.
- Conduct quarterly gonad index assessments to monitor the reproduction of red abalone in northern California.
- Conduct annual recruitment surveys by assessing the young-of-the-year inside recruitment modules (artificial reefs).
- Conduct red abalone tagging study off Van Damme State Park to determine movement in and out of fished depths.
- One new hire (Scientific Aide) has been used to assist with the underwater resource assessments as well as data entry of the results of these assessments.
- Contract will need to be let for the ongoing site based abalone abundance surveys.

Kelp Survey and artificial reefs:

This sub-project staff member will conduct a coast wide aerial kelp survey during the fiscal year to quantify the California kelp canopy as part of an ongoing time series. The survey will be utilized to provide information to assist selecting sites for new marine reserves and to evaluate the effectiveness of existing reserves. In addition, the Biologist will monitor the construction of an artificial reef in Ventura County utilizing Coastal Commission mitigation funds. The reef is intended to provide habitat for kelp and sport fish enhancement.

- Conduct aerial photo survey
- Digitize results
- Add to time series of kelp survey on Departments web page.
- Work with Department geo-database for archival storage of results.

² Two fishery dependent assessments required under the ARMP are currently unassigned pending the Marine Region restructuring. These include an ongoing time series of creel survey (dating back to 1975) and a punch-card and telephone survey. Until this year, one of the abalone staff biologists directed this work.

The CalCOFI subproject:

The Marine Region will host the CalCOFI Conference Symposium and publish the journal CalCOFI Reports. The conference will be held December 4 through 6, 2006. The journal volume from this conference will be published by December 2007.

- Participate in quarterly sampling cruises.
- Produce CalCOFI Reports publication and fishery reviews.
- Participate in annual CalCOFI conference.
- Conduct quarterly CalCOFI business meetings.
- Every third year (2006), plan and host the symposium of the CalCOFI Conference.
- Plan and host the symposium of the conference.
- Coordinate with the venue for the conference.

Key Measurable (Planned) Objectives for FY 2007-08:

ROV based assessments:

The ROV team will continue the time series of northern Channel Island MPA assessments initiated in 2004. The program will expand to include invertebrate monitoring to further develop the ROV as an important tool for assessment. The project will be prepared to continue ongoing assessments while producing a critical self evaluation of a three year time series off the northern Channel Island MPAs. If as anticipated, the Department and MARE are successful in providing redundant ROV equipment, the project will expand to invertebrate assessments. Staffing will be provided by further linkages to other products including the Invertebrate Management Project.

- Continue sampling and post processing fish habitat and abundances and off ten sites on and adjacent to five northern channel Island MPAs.
 - Ongoing Integration of the 2007 MPA survey in the geo-data base with DFG data program staff.
 - Write a cruise report.
 - Publish 2007 data on web-page and in 2007 final report
- Initiate preparation of a published report summarizing a three year time series of surveys at ten sites to evaluate the program effectiveness. This is in anticipation of the Commission 2008 northern Channel Island MPA evaluation.
- Train staff from other projects as part of expanded ROV assessments if and when redundant equipment with MARE is procured (e.g. abalone, sea urchin, sea cucumbers, squid, etc.)
- Publish peer reviewed paper on sampling design that will allow managers to determine what sampling levels are needed and what it will cost for future surveys.

- Publish paper on precision of quantitative tracking protocols to determine habitat relief initiated in 2006.
- Incorporate new sizing protocols as part of ROV survey...
- Procure redundant improved ROV system with MARE,
 - Design upgrade of entire system for 2007/08 upgrade of entire system to new standards using Department and Ocean Protection Council Grant.
- Continue hiring and training of post processing staff (3.5 positions of scientific aid staff). Establish a permanent post processing lab near a state university.

Abalone assessments³:

ARMP mandated assessments at key index sites will continue in conjunctions with the mandated tri-annual northern red abalone fisheries status report to the Fish and Game Commission summarizing the eight surveyed sites. An alternate strategy may be to initiate a long term monitoring program as outlined in the ARMP. Such sampling would require a shift to a more random stratified design that would be cost effective if linked to other SCUBA based assessments and partners such as Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) in concert with our Fishery Independent SCUBA assessment Project.

- Conduct resource assessments of abalone, and sea urchins at three of the eight key Index stations in Sonoma and Mendocino Counties.
- Produce tri-annual status of northern fishery report summarizing results of index site surveys as required by the Fish and Game Commission.
- Prepare draft publication for peer reviewed publication on yearly fecundity changes in abalone off northern California using the existing three year time series and previous gonad index work.
- If these results warrant and staffing becomes available, continue quarterly gonad index collections.
- Recapture tagged abalone at Van Damme State Park from study of movement in and outside of free diver depth refuge.
 - Prepare a report on movement based on mark and recapture locations.
 - If results are promising, tag an equal subset of the population for a continued movement study.
- Conduct annual recruitment surveys to assess the young-of-the-year inside recruitment modules (artificial reefs).
- Assess abalone meat weight differences in different seasons to determine changes during the fishery from April thru November (excluding July).
- Compile assessment information for non-fished abalone resources in northern California.

³ Given the likelihood that the ROV project may expand to a state-wide scope and that these studies are mostly SCUBA based, this project should be moved under Fishery Independent SCUBA assessment project.

- Diver staff from throughout the Department will be asked to participate in assessments.

Remote sampling⁴ and artificial reefs sub-project:

The kelp survey sub-project should be expanded to include reviewing other ongoing remote sampling such as satellite based kelp assessment, nearshore aerial habitat mapping using radar (LIDAR) and sub-sea sonar mapping. Such remote sampling is a major component used by the Department and others in the MPA planning process. Producing sub-sea sonar maps are a critical pre-requisite to effective ROV and SCUBA based assessments. The Department needs to take an active role in monitoring and directing these activities as a direct linkage to our other assessments.

- Contract out kelp flight surveys.
- Generate an annual summary report of existing and planned mapping with input from the various Department Projects involved in assessment and management.
 - Identify assessment gaps and potential partners to provide mapping.
- Initiate an archival GIS based data base with web-linkages to source maps
- Work with Data Management and Coordination project to establish a library of source mapping for various projects.
- Initiate contract for needed sonar or remote mapping.
 - Identify potential partners for in-kind support (e.g. vessel time and or funding).
 - Manage contract.

The CalCOFI subproject involvements:

CalCOFI is going to be working with the state more in 2007-08 to look at larvae of species of concern to both the federal and state fisheries management agencies.

- Participate in quarterly sampling cruises
- Participate in sorting of samples.
- Produce larval abundance reports for fishery management
- Produce CalCOFI Reports publication and fishery reviews
- Participate in annual CalCOFI Conference
- Conduct quarterly CalCOFI business meetings

⁴ This change will require an added 0.5 PY of GIS support and 1 PY of temp help support in addition to contract funds for kelp and habitat survey.

Project 4: Data Base Management

This project consists of a group of data base and GIS specialists that develop, maintain, and sometimes analyze fishery and habitat data bases for the MRAP and Marine Region management units. The project inventories historical and current data bases and ensures they are in usable, up-to-date form.

Budgeted Resources Dedicated to the Project: This project includes four permanent positions and a Personal Services budget of \$291,949, which is already included in the Personal Services budget for the Marine Region Management Program.

Key Measurable (Planned) Objectives for FY 2006-07:

- Prior to July 2007, conduct a complete inventory of historical, current, and anticipated fish, invertebrate, and habitat data bases, including any necessary updates in format or software to ensure maximum utility and availability.
- Prior to July 2007, cooperate with the Bio-geographic Data Branch (BDB) in developing protocols for ensuring that Marine Region data is maintained in a form that complies with the standards of the Branch.
- Prior to July 2007, in cooperation with other MRAP units, develop a plan for facilitating peer review and publication of Marine Region research and monitoring results, including facilitating the re-establishment of the "Fishery Bulletin" and Administrative Report series. In connection with this publication facilitation effort, re-establish the relationship between Marine Region and the Moss Landing Marine Lab for housing and locating historical, current, and future Marine Region publications.
- Centralized commercial and recreational database depository; quality control; and distribution; evaluate appropriate commercial fishery-dependent data collection currently collected and plan for future needs including electronic formats.
- Coordination with Pacific Coast Ocean Observing System (PaCOOS) proposal to develop and maintain comprehensive ocean databases; collaboration with NOAA's Southwest Fisheries Science Center (SWFSC) and the Department'; integrated data management system to allow access and ecosystem-based analysis.

Key Measurable (Planned) Objectives for FY 2007-08:

- Work with Marine Protected Area (MPA) staff to develop the GIS data layers necessary to develop and evaluate the next network of MPAs under the Marine Life Protection Act (MLPA) for consideration by the Commission.
- On a priority basis begin updating all historical and current Marine Region biological and habitat data bases to ensure their compliance with BDB standards. Complete the updating process by July 2008.

Project 5: Research Vessel Operations

The Marine Region has several research vessels, ranging from skiffs to an 85-foot trawler. Research Vessel Operations staff maintains these vessels, prepares them for field activities in cooperation with Biologists, schedules their use, and (in the case of larger vessels) operates them. Senior operators are also trained in the operations of large Enforcement Branch marine vessels for both research and enforcement purposes. The Marine Region's research vessels are often operated in support of research activities by universities and other agencies.

Budgeted Resources Dedicated to the Project: This project includes five permanent positions and a Personal Services budget of \$285,591.

Key Measurable (Planned) Objectives for FY 2006-07:

- Operate vessels during scheduled cruises throughout the year, but primarily during the late spring through fall period.
- In the 2006-07 off season perform necessary maintenance and repairs on Marine Region vessels to ensure their availability during the 2007 off-season.
- By April 1, 2007 prepare a complete inventory of all Marine Region vessels, including an assessment of their conditions and any repairs/improvements needed to make them "turn-key" ready for the 2008 field season. In conjunction with this inventory, develop (in cooperation with fishery management and other resource assessment projects) recommendations for fleet additions and deletions. Also in connection with this inventory develop a specific recommended plan for ensuring the ongoing maintenance of desired vessels in "turn-key" condition.
- By February 2007, develop a specific proposal for a formal use and cost sharing arrangement between the Marine Region and the Enforcement Division with respect to the large Enforcement catamarans.
- During the 2006-07 off season make a concerted effort to identify internal or external needs for the services of the Department owned research vehicle Mako (R/V Mako). Simultaneously, explore options for divesting the Marine Region of the vessel if productive internal or external uses can not be identified.

Key Measurable (Planned) Objectives for FY 2007-08:

- Operate vessels during scheduled cruises throughout the year, but primarily during the late spring through fall period.
- In the 2007-08 off-season perform necessary maintenance and repairs on Marine Region vessels to ensure their availability during the 2007 off-season
- Perform approved maintenance/repairs/improvements to Marine region vessels as identified in the 2006-07 inventory to have the vessels in turn-key condition for the 2008 field season.

- Depending on the outcome of the 2006-07 assessment of R/V Mako uses and marketability, either prepare the vessel for divestment or use during the 2007-2008 off season.

Project 6: Fishery Independent (SCUBA) Assessment

Using primarily SCUBA-based methods, the staff of this project conducts surveys of fish and invertebrates in nearshore sub-tidal habitats, coast-wide. In some cases this is for purely stock assessment and monitoring purposes, while in other cases it is to evaluate specific management measures. Often this project works in partnership with other agencies and academic institutions to accomplish large-scale, collaborative research and monitoring efforts.

Budgeted Resources Dedicated to the Project: This project includes seven permanent positions and a Personal Services budget of \$544,824.

Key Measurable (Planned) Objectives for FY 2006-07:

- Marine Region management units are currently in the process of prioritizing species for assessment needs. In cooperation with these units by July 2007 develop formal recommended monitoring approaches for high priority species. Obtain independent peer review of proposals. In conjunction with developing monitoring approaches, develop an inventory of all significant ongoing marine fishery-independent monitoring being conducted along the California coast.
- Begin providing some “core” support for Channel Islands National Park’s expanded Kelp Forest Survey.
- Working with Marine Region’s invertebrate management unit, develop by July 2007 (with peer review) approaches for developing capacity goals for spiny lobster, sea urchins, and sea cucumbers; documenting spiny lobster larval distribution and migration dynamics; verification of urchin “barefoot ecologist” size density and distribution surveys; and developing distribution and abundance information for key exploited bivalves and gastropods in fished and un-fished inter-tidal areas.
- Conduct annual Department SCUBA diver certifications and re-certifications, maintain professional memberships in American Academy of Underwater Scientists (AAUS), provide planning and logistical support for Department dive projects in coastal and inland environments for biological surveys and enforcement.

Key Measurable (Planned) Objectives for FY 2007-08:

- During the 2007 field season pilot test monitoring methods and approaches and beginning with the 2008 field season implement the required fishery-independent monitoring for high-priority species identified during the 2006-07 cooperative needs assessment.
- Continue providing some “core” support for Channel Islands National Park’s expanded Kelp Forest Survey on an ongoing basis.

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: **Marine Region Management**

Project: **Marine Regulatory Unit**

The Marine Regulatory Unit (Unit) is responsible for developing regulations that appear in Title 14 of the California Code of Regulations (CCR) and statutes that appear in the Fish and Game Code relative to marine fisheries. The Unit produces all supporting documentation required by the Administrative Procedure Act to reflect actions taken by the Commission relative to marine sport or commercial fishing. Staff performs analyses, prepares reports and presents findings and recommendations to the Commission to aid in the decision making process.

Staff also works in close contact with Department policymakers regarding current marine fishery issues at the state and federal level, with the goal of converting policies into laws and regulations. Staff also interacts closely with stakeholders, the Commission staff, other state and federal agency representatives and Marine Region field and Enforcement staff on development of regulatory text.

Budgeted Resources Dedicated to the Project: This project includes one position and a Personal Services budget of \$89,370, which is already included in the total Personal Services budget for the Marine Region Management Program.

Key Measurable (Planned) Objectives for FY 2006-07:

Commission decision to allow commercial lobster fishing in the Dana Point Marine Life Refuge:

- I. Initial Statement of Reasons (ISOR) – Drafted proposed regulatory language, provided the reasons for the proposed regulatory change, and provided an analysis of economic impacts. Also included were reviews of the Legislative and Regulatory history for the Dana Point area and changes in Legislative history regarding Marine Protected Areas (MPA).
- II. Pre-Adoption Statement of Reasons (PSOR) – Documented public comments received to date, and provided the Department's responses to these comments.
- III. Final Statement of Reasons (FSOR) – Summarized the action taken by the Commission at the adoption hearing, prepared final regulatory text, documented additional public comments received, and the Department's responses to these comments.

Commission decision to establish a Non-Transferable Market Squid Light Boat Permit and to update and incorporate Squid Logbooks into Title 14. Additional Commission decision was made NOT to increase squid permit fees to cover Department costs for squid.

- I. Initial Statement of Reasons – Draft proposed regulatory language, provide the reasons for the proposed regulatory change, work with License and Revenue Branch (LRB) to create the new permit and provide a comprehensive cost estimate for Department work to monitor and manage the squid fishery and implement the commercial permit program. Work with biological staff on logbook forms. Department shortfalls of about \$800,000 annually support a fee increase, although the Commission rejected the Department's request to take this action. Also included was a brief review of the history of the squid Restricted Access program and non-transferable permits.
- II. Pre-Adoption Statement of Reasons
- III. Final Statement of Reasons
- IV. Presentations to the Commission at scheduled meetings and subcommittees, and handout materials as requested

Changes to recreational groundfishing regulations for 2007 and 2008

- I. Initial Statement of Reasons – Draft proposed regulatory language amending and adding about 30 sections of Title 14, and assess economic impacts. The sport groundfish regulations must change in response to changes in the federal rules effective for January 1, 2007.
- II. Pre-Adoption Statement of Reasons
- III. Final Statement of Reasons
- IV. Presentations to the Commission at scheduled meetings and subcommittees

Triennial review of sportfishing regulations

- I. Evaluate, summarize and respond to 42 public proposals for changes to existing regulations (develop summary table)
- II. Evaluate and draft regulatory documents for four Marine Region proposed regulatory items (ISOR, PSOR, FSOR documents – 12 in total):

- a. Changes to Pacific halibut size and season regulations
- b. Clarify regulations regarding sport take of squid
- c. Repeal a regulation regarding “brown skinned rockfish fillets”
- d. Clarify regulations regarding take of crustaceans by hand

III. Draft ISOR, PSOR, and FSOR documents for two public proposals accepted by the Department:

- a. Sport Dungeness crab season opening dates
- b. Sport Dungeness – theft of crabs from sport traps

IV. Assist IFD/Bay Delta and LRB efforts to draft regulatory documents supporting implementation of a sturgeon report card program, changes to the slot limit, establishment of an annual limit and tagging procedures.

V. Coordinate with Marine Region efforts to produce supplemental CEQA documents on marine sportfishing.

VI. Presentations to the Commission at scheduled meetings and subcommittees

Assist Enforcement Division with the following:

- I. Draft paperwork (ISOR, PSOR, FSOR) supporting Commission actions to amend existing regulations relative to commercial rock crab fishing.
- II. Review enforcement’s proposed changes to legislation
- III. Work with legal counsel to resolve issues relative to authority – determining whether Enforcement’s changes proceed in Code or in Regulations.

Establish sport bag limits for albacore and bluefin tuna

- 1. Draft paperwork (ISOR, PSOR, FSOR) supporting Commission action on this item, following actions by the PFMC.

Establish a permit fee for California Halibut Trawl Permits

- I. Draft paperwork (ISOR, PSOR, FSOR) supporting Commission action on this item, following recommendations by the Department on an appropriate fee level.
- II. Work with LRB to establish the fee within the existing permit program

Ongoing review of Commission Policy on Restricted Access Fisheries

- I. Prepare analyses or documents as requested by Directorate, Commission or Marine Region management
- II. Presentations to the Commission at scheduled meetings and subcommittees as needed

Firefighting and Mop-Up Duties: Deal with budget proposals, litigation, and prepare other items at the request of management, Directorate or Commission on any issue relating to marine regulations or statutes.

Hire and train an Associate Governmental Program Analyst to assist incumbent with duties as described above.

Key Measurable (Planned) Objectives for FY 2007-08:

1. Continue all items above from 2006-07 until completion, or as needed.
2. Establish a fillet size limit for California sheephead to correspond with the existing minimum size limit, and/or establish other regulations following a new stock assessment.
3. Draft paperwork (ISOR, PSOR, FSOR) supporting Commission actions
4. Modify existing commercial trip limits for cabezon
 - Draft paperwork (ISOR, PSOR, FSOR) supporting Commission actions; and/or establish new rules consistent with PFMC actions.
5. Modify existing regulations for recreational harvest of sanddabs and other flatfish species, consistent with PFMC actions.
 - Draft paperwork (ISOR, PSOR, FSOR) supporting Commission actions; and/or establish new rules consistent with PFMC actions.
6. Other rulemaking activity as directed (herring, squid, halibut, commercial groundfish, etc).

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: Administration and License Sales

The objective of this program is to provide overall guidance and support to Marine Region staff for administrative operations of the Department, and to achieve program goals.

Project: Administration and License Sales

This project provides administrative and license sales support for the Marine Region. These services include but are not limited to: development and management of Marine's budget and administrative services; contracts; business services; property management; telecommunications; purchasing; accounts payable; building and facility management for numerous offices; health and safety administration; personnel transactions and payroll; and training coordination; and word processing and reception.

Budgeted Resources Dedicated to the Project:

This project includes 21 permanent positions, one retired annuitant and a Personal Services budget of \$1,203,375.

Key Measurable (Planned) Objectives for FY 2006-07: The following are some of the planned products: Management Coordination and Planning; Budget Management Implementation; Component Coordination and Work Plan development; Business Services Products; Contract Implementation; Personnel Transactions; Accounting Service Transactions; Clerical Administrative and License Sale Products.

- **Management Coordination and Planning:** Furnish management and supervisory direction to ensure conformance with policies and accomplishment of Marine Region objectives. Plan, organize and direct all aspects of Marine Region administration to assure consistent and complete administrative support for all programs and projects within the Marine Region and effective interface with all headquarters fiscal and control operations through all available mechanisms (telephone, e-mail, meetings, committee participation, written documentation, etc.)
- **Budget Management:** Oversee allotment review management, transfer of budget allotments (approximately 70 to date in 2006-07), manage federal/reimbursement funds, implement budget actions, meet and coordinate with Department's administrative leaders, Budget Branch staff and region senior management; monitor fund source management; develop and implement BCCPs
-

and BCP's, oversee position control management, Index/PCA management and establishment; prepare all relevant documentation and obtain proper approvals.

- **Contracts:** Develop, implement and monitor numerous reimbursement, payable, federal and short form contracts. (38 contracts; 25 short form contracts in 2006-07 to date).
- **Personnel Services:** Fill numerous vacant positions through Request for Personnel Action (RPA) process to avoid position abolishment within 6 months of vacancy. Prepare and process estimated 140 RPA packages to include all relevant documentation (estimated at 980 documents for new hires and another 800 documents for refilling other vacancies or processing other actions -- each RPA involves at 5-10 separate documents) and close coordination with Human Resources Branch and Budget Branch throughout the process. Maintain current position control and updated org charts. Provide full range of payroll and benefits support to 165 Permanent Full-Time employees; 51 Enforcement employees and approximately 30 Temporary Help employees.
- **License Sales/Cashiering/Reception/Public Information:** Provide the public with license sales, permits, stamps and tags. Obtain and control license stock inventory; deposit collected revenue and prepare license reports; manage separation of duties for cash operations in Los Alamitos and Monterey.
- **Business Services:** Prepare purchase contract documents, requisitions and supply orders as needed. Maintain property (vehicles, vessels, computers and other equipment) via controlled inventory and tracking process; survey and arrange for disposition of unserviceable property. Train all staff on use of Department's Business Information System (BIS) software for accurate and effective management of procurement, payment and expenditure control. Maintain or develop new safety plans and security needs where needed. Develop and track facility maintenance and operational needs for the Region.

Key Measurable (Planned) Objectives for FY 2007-08: The Administration Project stands ready to adjust and grow in a continuous effort to promptly and effectively respond to and support the administrative needs of all Marine Region's programs and projects. Our 2007-08 work products will mirror our continuing effort in FY 2006-07 as the Administration Project provides a continuum of service.

Marine Region Program Descriptions and Key Measurable (Planned) Objectives

Program: *Marine Region Management*

Project: **Marine Region Public Outreach and Education**

As Marine Region Public Outreach and Education Coordinator, create venues and pathways to:

- Communicate concise, accurate, effective and interesting Marine Region-related information, both internally and externally
- Achieve transparency in Marine Region actions and decisions
- Inform and educate the public about marine resources
- Promote conservation and responsible use of marine resources
- Expedite successful completion of various Marine Region projects, possibly using new and innovative outreach and education strategies and tools.
- Collaborate with the Office of Communications, Education and Outreach to achieve the above and other shared goals

Budgeted Resources Dedicated to the Project: This project includes one position and a Personal Services budget of \$69,453, which is already included in the total Personal Services budget for the Marine Region Management Program.

Key Measurable (Planned) Objectives for FY 2006-07:

- California Fishing Passport & California Fish and Invertebrate Identification Book
- Ocean Sport Fishing regulations booklet & Ocean & Freshwater Sport Fishing Regulations supplement
- Four issues of Marine Region newsletter
- Estimated 10 to 12 outreach events (sport fishing shows, Fishing Passport program, etc.)
- Magazine articles for *Outdoor California*
- Nationwide review of state marine resource management outreach efforts
- Training: Natural Resources Communication Workshop, CSU Chico
- Training: Attend NASW Workshop during AAAS meeting, San Francisco
- Informational products for new California Fishing Passport Program

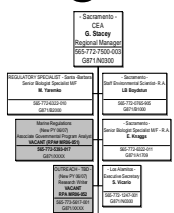
Key Measurable (Planned) Objectives for FY 2007-08:

- Four issues of Marine Region newsletter
- Estimated 10 to 12 outreach events (sport fishing shows, Fishing Passport program, etc.)
- Magazine articles for *Outdoor California*
- Ocean Sport Fishing regulations booklet & Freshwater & Ocean Sport Fishing Regulations supplement
- Present summary of nationwide outreach review to Marine Region managers, implement strategies as appropriate
- Training: Increase and hone publication software skills in Adobe Illustrator and InDesign
- Informational products for the new California Fishing Passport program

Department of Fish and Game

OCTOBER 4, 2006

DEPARTMENT OF FISH AND GAME
- MARINE REGION -



New positions 2006/2007

LEGEND

New Positions FY 2006-07

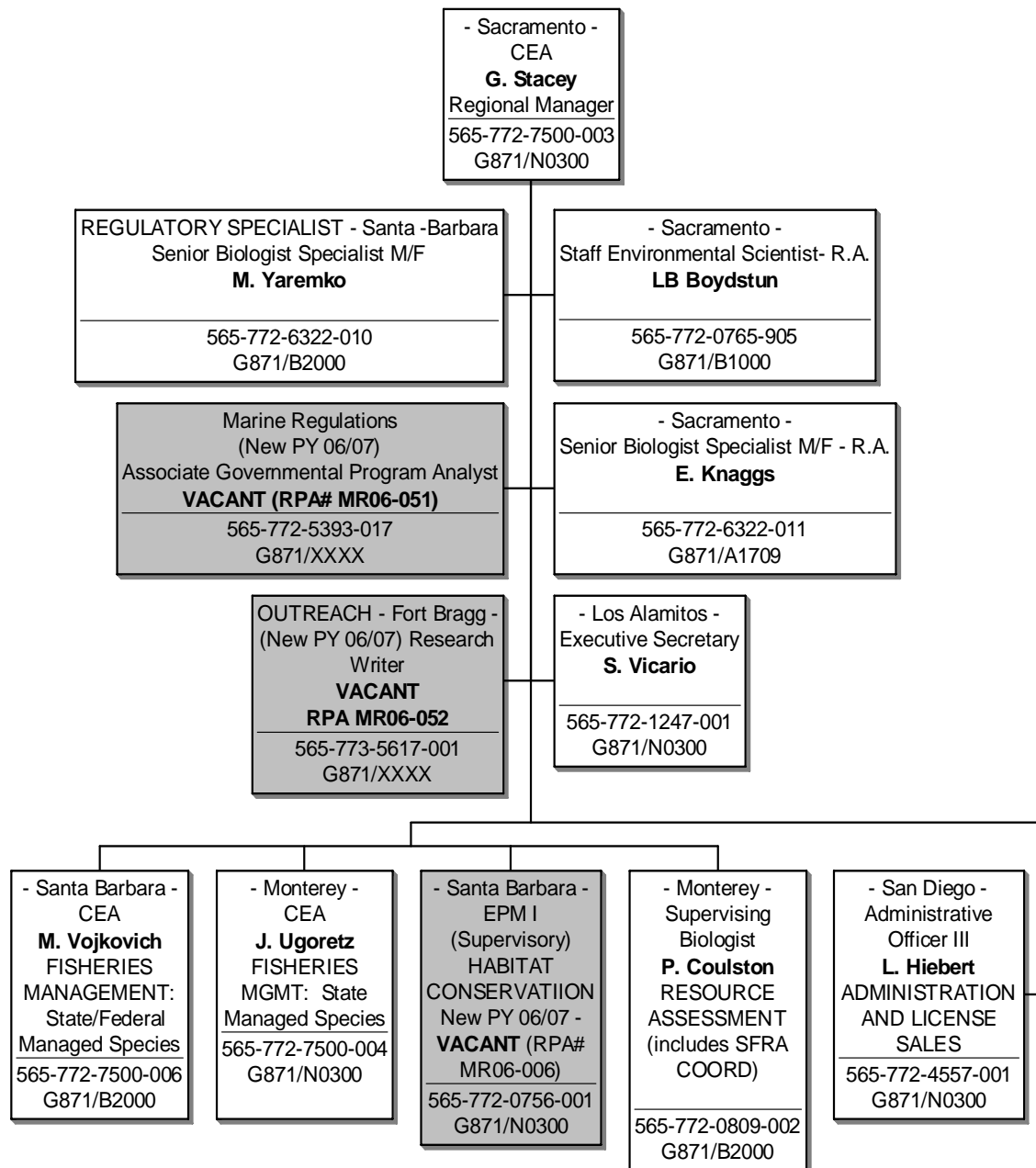
Existing Vacancies prior to 7-1-06

Approved by: _____

Gary B. Stacey, Regional Manager

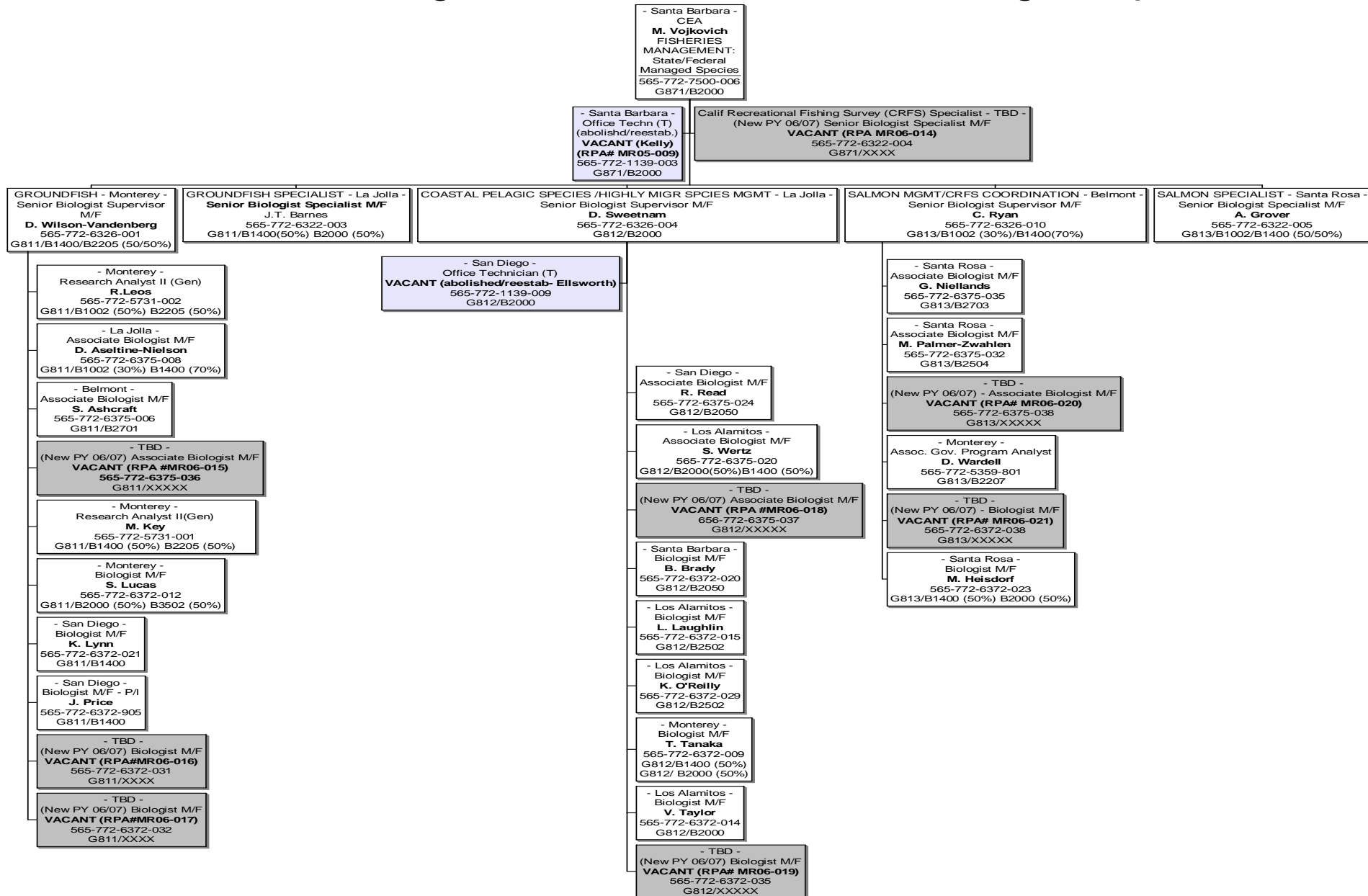
Department of Fish and Game

Marine Region Management

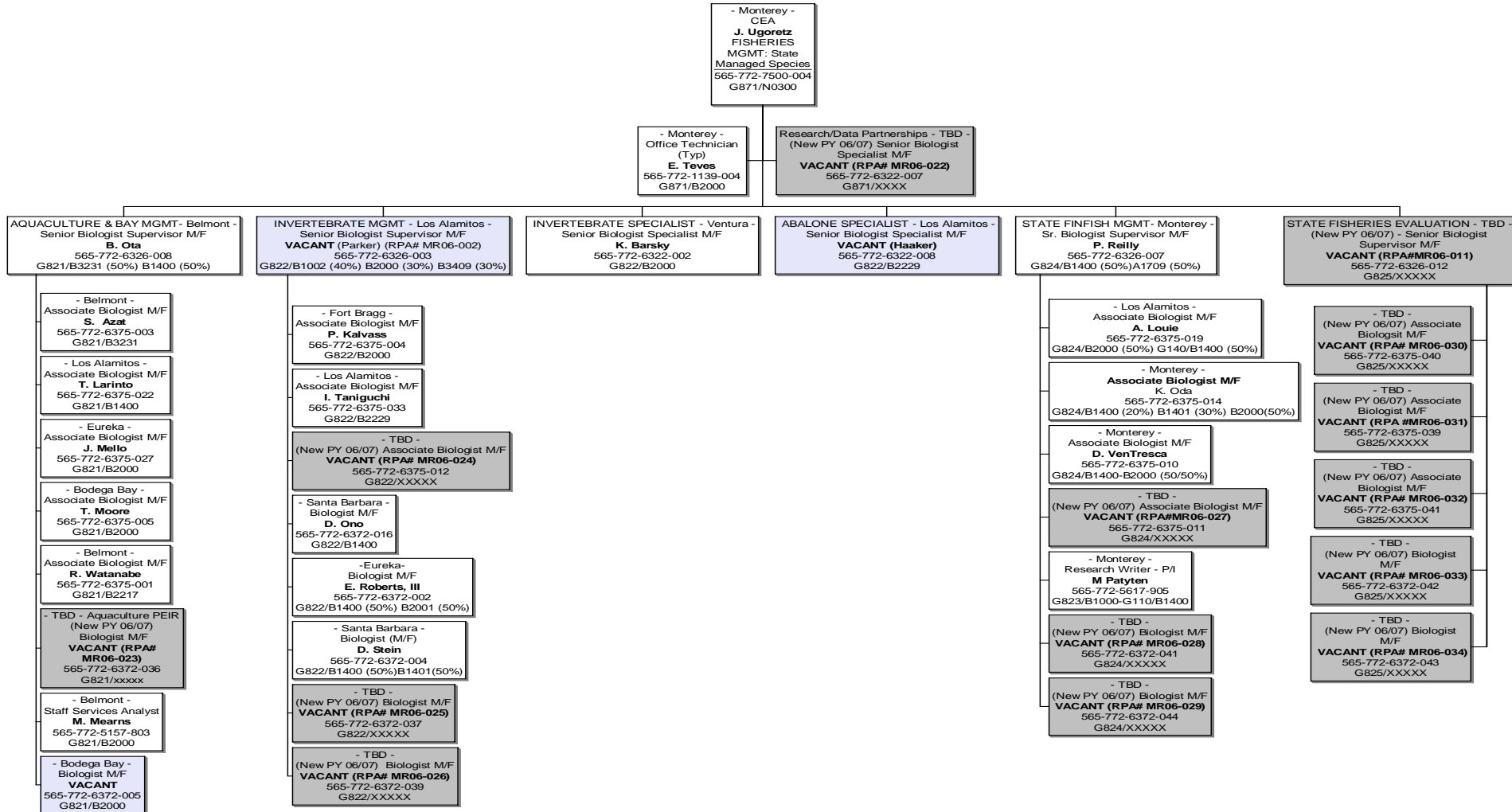


Department of Fish and Game
Marine Region

Fisheries Management: State/Federal Managed Species

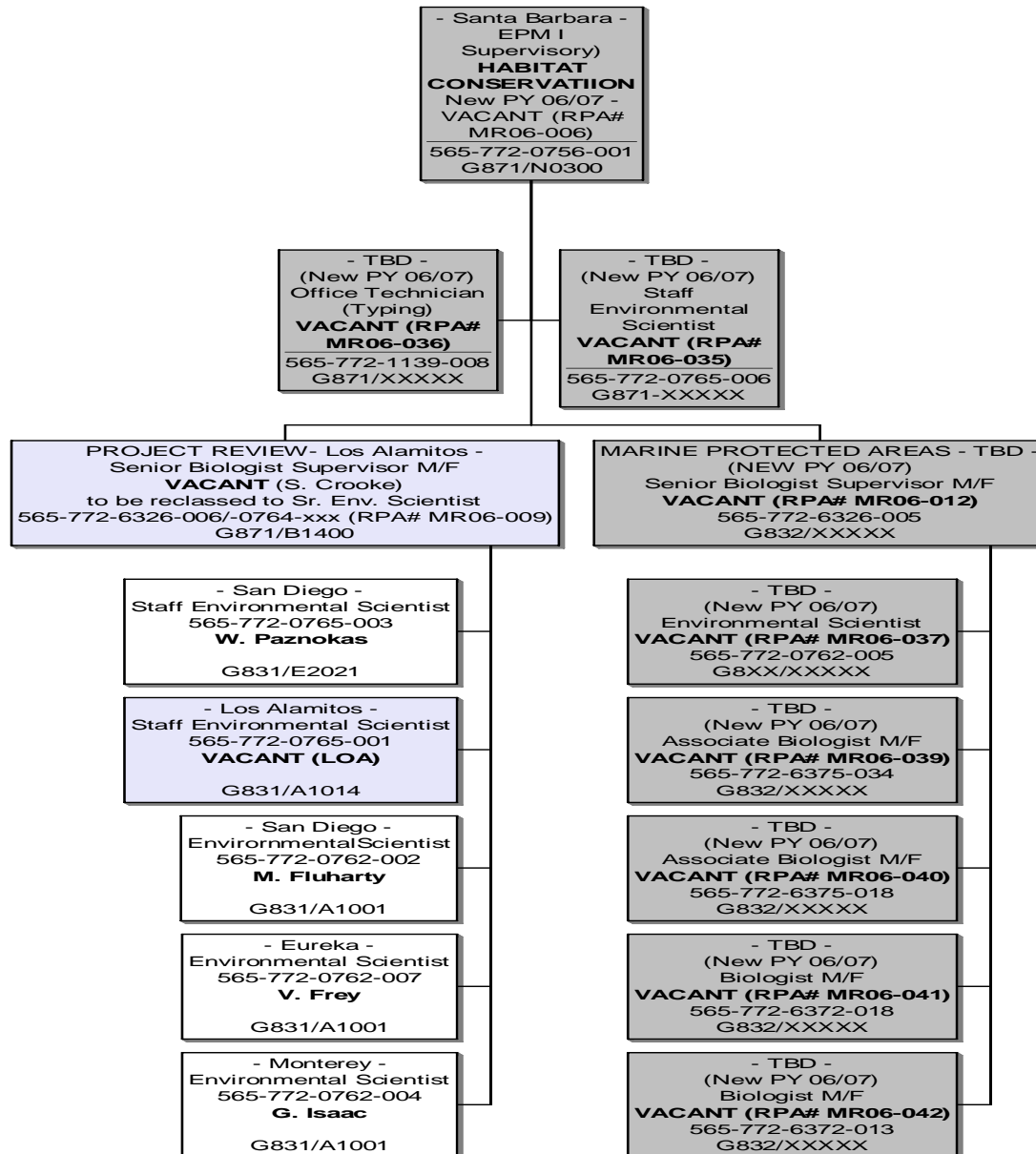


Department of Fish and Game
Marine Region
Fisheries Management: State Managed Species



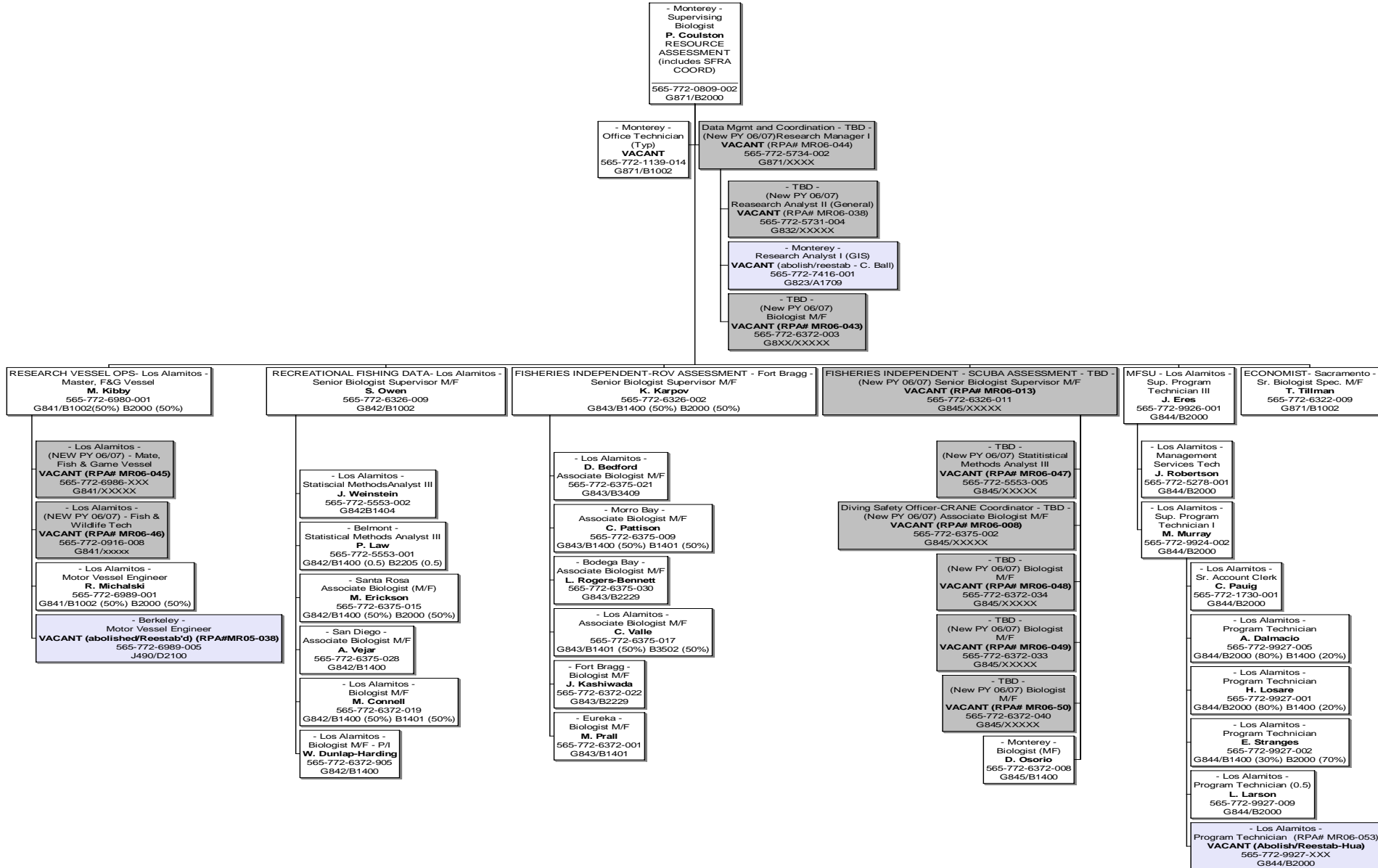
Department of Fish and Game
Marine Region

Marine Habitat Conservation



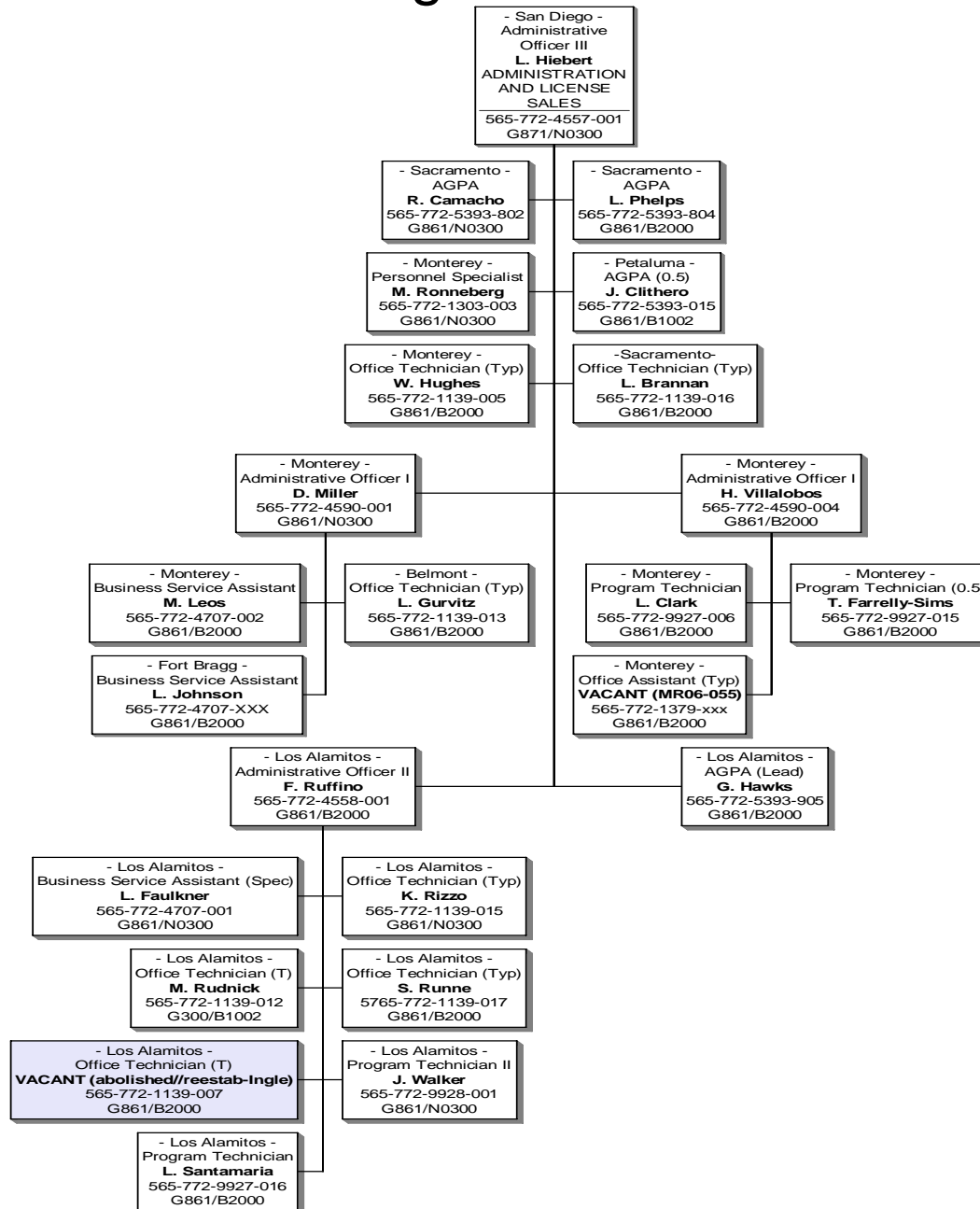
Department of Fish and Game
Marine Region

Marine Resource Assessment



Department of Fish and Game

Marine Region Administration



MLPA		
	Description	Total
Personal Services		
	35 new PYs and funding for 2.75 existing	\$2,700,000
Operating Expenses		
	General Expense (office supplies, travel, ect.)	\$566,000
	Upgrades to the Department forensics lab to establish protocols for genetic testing for enforcement and restoration activities	\$250,000
	Replacement of Department aircraft for survey work and enforcement activities	\$350,000
	Purchase of Marine vessels to be used for stock assessments and monitoring of MPA sites	\$400,000
	Contract for additional monitoring of MPA sites	\$150,000
Indirect Costs		
		\$949,000
	Subtotal	\$5,365,000
MLMA		
Personal Services		
	10 new PYs	\$675,000
Operating Expenses		
	General Expense (office supplies, travel, ect.)	\$145,000
	Upgrades to the Department forensics lab to establish protocols for genetic testing for enforcement and restoration activities	\$250,000
	Replacement of Department aircraft for survey work and enforcement activities	\$350,000
	Abalone Group facilitation of meeting contract	\$50,000
	Contract for additional data collection	\$150,000
Indirect Costs		
		\$365,000
	Subtotal	\$1,985,000
Total MLPA and MLMA		
		\$7,350,000
BOTTOM TRAWL		
Personal Services		
	10 new PYs	\$712,000
Operating Expenses		
	General Expense (office supplies, travel, ect.)	\$145,000
	Three year contract for stock assessment for halibut, pink shrimp, and two other speices of prawns	\$350,000
	Additional marine vessel for focusing on bottom trawl speicies	\$140,000
Indirect Costs		
		\$303,000
	Subtotal	\$1,650,000
Grand Total		
		\$9,000,000

DEPARTMENT OF FISH AND GAME (3600)

Summary Workplan MLMA / MLPA Resources & Activities

Activities	Fund Source	Pos	Funds
One-Time Ocean Protection Council Funds for MLMA/MLPA	GF	-	\$8,000,000
Ongoing Marine Life Protection Act (MLPA)	GF	11.0	\$2,700,000
Ongoing Bottom Trawl bill, Marine Life Management Act (MLMA)/MLPA, Aquaculture EIR	GF	35.0	\$5,000,000
One-Time MLMA/MLPA	GF	-	\$2,000,000
Ongoing MLMA/MLPA Positions	GF	9.0	\$1,000,000
Ongoing MLPA Funding for Existing Positions	GF	2.75	\$380,000
Ongoing Baseline Budget	ELPF	-	\$500,000
TOTAL RESOURCES		57.75	\$19,580,000

Department of Fish and Game
Approved Deferred Maintenance Projects
Fiscal Year 2006-07

2006-07

Region 1	FY 2006-07	
-----------------	-------------------	--

ASH CREEK WA

Project	State	Priority Region	HOC	Category	Estimate
Rewire Shop				DM	\$5,000.00

Total: \$5,000.00

CANTARA/NEY SPRINGS WA

Project	State	Priority Region	HOC	Category	Estimate
Reroof Building	0	0	0	DM	\$75,000.00

Total: \$75,000.00

LAKE EARL WA

Project	State	Priority Region	HOC	Category	Estimate
Install New Leach Field	0	0	0	DM	\$6,000.00
Residence Roof				DM	\$16,000.00

Total: \$22,000.00

REGION 1 HEADQUARTERS

Project	State	Priority Region	HOC	Category	Estimate
Install New HQ HVAC Unit	0	0	0	DM	\$25,000.00
Replace Membrane Roof	0	0	0	DM	\$150,000.00

Total: \$175,000.00

Region 2	FY 2006-07	
-----------------	-------------------	--

GRAY LODGE WA

Project	State	Priority Region	HOC	Category	Estimate
Replace East Side Residence Roof	0	0	0	DM	\$15,000.00

Total: \$15,000.00

Region 3	FY 2006-07
----------	------------

ELKHORN SLOUGH ER

Project	State	Priority Region	HOC	Category	Estimate
Replace Parking Light Standards	0	0	0	DM	\$25,000.00

Total: \$25,000.00

Region 4	FY 2006-07
----------	------------

CANEBRAKE ER

Project	State	Priority Region	HOC	Category	Estimate
South House Septic System Repair	0	0	0	DM	\$5,000.00

Total: \$5,000.00

Region 5	FY 2006-07
----------	------------

BATIQUITOS LAGOON ER

Project	State	Priority Region	HOC	Category	Estimate
Maintenance Dredging Expansion				DM	\$650,000.00

Total: \$650,000.00

HOLLENBECK CANYON

Project	State	Priority Region	HOC	Category	Estimate
Residence Reroof	0	0	0	DM	\$20,000.00

Total: \$20,000.00

SAN FELIPE VALLEY WA

Project	State	Priority Region	HOC	Category	Estimate
New Security Fence	0	0	0	DM	\$150,000.00

Total: \$150,000.00

Region 6	FY 2006-07	
----------	------------	--

FILLMORE FH

Project	State	Priority Region	HOC	Category	Estimate
Refurbish Well #5	0	0	0	DM	\$50,000.00
Replace Office HVAC	0	0	0	DM	\$15,000.00

Total: \$65,000.00

SLINKARD/LITTLE ANTELOPE WA

Project	State	Priority Region	HOC	Category	Estimate
Reroute HQ Electrical Power	0	0	0	DM	\$5,000.00
Residence R-101 Roof Replacement	0	0	0	DM	\$10,000.00

Total: \$15,000.00

Item 3600-001-0001 Department of Fish and Game

2. Interim Reporting on Select Key Activities.

*On or before January 10, 2007, Department shall provide a report to the Legislature (including budget and fiscal committees from both houses) on the budgeted activities for 2006-07 and 2007-08 the following program areas: (1) Department's enforcement program, (2) Marine Division, (3) **land management and operations**, (4) California Environmental Quality Act (CEQA) and Section 1600 program activities, and (5) conservation planning activities. For each of these activities, the department shall include a description of the program, an estimate of the budgeted resources dedicated to the program in 2006-07 and 2007-08, and a discussion of the key, measurable objectives of the programs for 2006-07 and 2007-08.*

DEPARTMENT RESPONSE:

FY 2006-07 -- Land Management and Operations

PROGRAM DESCRIPTION

The Department of Fish and Game (Department) owns and manages more than one million acres of land for conservation of important species and habitats. These lands are critical to the survival of sensitive species and those of great economic importance, such as native salmonids, waterfowl, large ungulates, and offshore fisheries. These lands also provide important opportunities for the public to hunt, fish, watch wildlife and learn about nature.

The Department currently owns or administers 711 properties statewide, totaling 1,051,867 acres (588,440 owned and 463,427 administered). The 711 properties include 108 wildlife areas, 124 ecological reserves, 11 marine reserves, 230 undesignated lands, 180 public access areas, 21 fish hatcheries, and 37 miscellaneous lands. With the exception of the Department's 21 fish hatcheries managed, which are managed by the Fisheries Branch¹, all Department lands are managed by the statewide Lands Program.

¹ Department's 21 hatcheries are not addressed in this report.

The statewide Department Lands Program (Program) is charged with the management of over one million acres of land on 690 properties located throughout California. The Program consists of 95 regional and eight headquarters staff responsible for all aspects of the program, including land acquisition, species and habitat management, property and infrastructure maintenance, and providing opportunities to the public for activities such as hunting, fishing, wildlife viewing, education and research.

The Wildlife Conservation Law of 1947 established the Wildlife Conservation Board (WCB) within the Department for the acquisition of lands for recreational and conservation purposes. The Department works with the WCB to prioritize lands for acquisition that meet various statutory requirements for species and habitat conservation and public recreation. Once purchased by the WCB, these lands are managed by the Department.

The initial phases of management involve securing the property and assessing it to determine species and habitat management needs, infrastructure needs, and recreational opportunities in the development of a management plan. If it is necessary to regulate access and public use on Wildlife Areas and Ecological Reserves for the protection of important species and habitats on a particular property, the Department will propose regulations for adoption by the Fish and Game Commission for this purpose.

Wildlife areas are established to conserve wildlife and allow public recreational uses. Ecological reserves are established for the protection of threatened and endangered species and special habitats, for the public to observe native flora and fauna, and for scientific research. Public uses are allowed on wildlife areas and ecological reserves when they are compatible with the purposes for which the properties were acquired, and with conservation of important species and habitats on the property.

Management of Department lands varies depending on the types of habitat and species present, and the levels and types of public use that occur. Generally, Department lands can be categorized as those that are intensively managed, and those that are not. Intensively managed lands are those with permanent full-time and temporary staff onsite with operating budgets specific to that site. These lands are usually managed for controlled public use, with major development of habitat and facilities, and feature wetland habitats as a significant component of the property. Nineteen of the Department's properties are in this category. Lands not falling within this category are less intensively managed; that is without staff and major habitat development and public use programs. The Department's remaining 671 properties (excludes hatcheries) fall into this category.

While Department lands are typically purchased for more than one purpose, whether for the conservation of one or many species, habitats or to provide public use opportunity, the most common primary purposes for which the Department acquires land are for bighorn sheep habitat, threatened and endangered species, deer habitat and interior wetlands as noted in the following table:

Acreage Administered By Primary Management Purpose²	Owned in Fee Title	Administered Through MOU's, Leases, Easements, Management Agreements	TOTAL³
Bighorn Sheep Habitat	32,006	235,220	267,227
Coastal Wetland Habitat	55,608	23,621	79,229
Deer Habitat	135,731	33,825	169,556
DFG Facilities	400	729	1,129
Fisheries Habitat	1,753	474	2,227
Grasslands/Uplands Habitat	20,282	11,628	31,960
Interior Wetland Habitat	120,465	32,412	152,877
Marine Habitat	0	39,192	39,192
Property Rights Only	1	0	1
Public Access	4,925	4,549	9,473
Right of Way Easements	0	0	0
Riparian Habitat	38,814	12,481	51,295
Special Habitats	32,456	31,900	64,356
T&E Species Habitat	145,998	37,345	183,343
TOTAL	588,440	463,427	1,051,867

Management activities focus on assessing, restoring, maintaining, and improving habitats for fish, wildlife, and native plants. These activities are accomplished with species and habitat surveys and monitoring, and habitat management with irrigation, disking, burning, grazing, planting of native species, removal of invasive species, and/or installation of important structural habitat elements. Maintenance activities keep facilities in good condition for effective management; the safety and enjoyment of employees and the public; and preservation of valuable public assets. Maintenance activities include fence building and repair, gate installation, road grading, facilities repair and maintenance, garbage collection, sign replacement, habitat restoration, water management, and levee construction and repair. Facilities development consists of assessing needs for planning, and constructing facilities for employees and the public,

² This is an overview of DFG-managed or owned lands, not a detailed report. Many properties have multiple management objectives; only the primary purpose is listed here.

³ Discrepancies in total acreage between tables and columns are due to rounding of numbers

such as housing, office space, workshops, visitor centers, restrooms, kiosks, signs, roads, trails, and related infrastructure.

In addition to management, maintenance and facilities development activities, the Department is responsible to other agencies for the payment of fees and assessments related to the management of properties. The Department is responsible for tracking these fees, determining their validity, and paying them when funds are available.

In addition to the lands it owns and administers, the Department also enters into management agreements on private lands for the conservation of wetlands and other important habitats. Through various private land conservation programs, such as the Comprehensive Wetland Habitat Program and the Landowner Incentive Program, the Department works with private landowners to encourage habitat enhancement and restoration for the benefit of the species that depend on these important habitats.

One of the biggest factors impacting the Program's ability to comprehensively manage departmental properties is the lack of an integrated automated system. Manual tracking systems for property inventory, facilities maintenance, uses/activities, costs and revenue are cumbersome and do not allow for efficient reporting. While Program staff maintains accurate records, the inability to systematically schedule maintenance, deferred maintenance and capital outlay projects results in the delay of necessary work, often at increased costs. Often times, critical work is not performed for this reason.

Additionally, the lack of an integrated system impacts the Department's ability to comprehensively evaluate and prioritize infrastructure issues, resulting in significant facilities management concerns, which are further enumerated in Section 5 – Five-year Infrastructure Plan.

BUDGETED RESOURCES

The Department estimates budgeted resources for FY 2006-07 at \$18,559,000 (70% state funding) and 116 positions. For FY 2007-08, the Department estimates budgeted resources at \$19,815,000 (67% state funding) and 127.5 positions.

KEY MEASURABLE OBJECTIVES

The Department's primary objective for the management of its lands in FYs 2006-07 and 2007-08 is to manage properties for the purposes for which they were acquired to sustain healthy habitats and wildlife populations, and to provide compatible public use opportunities.

Approximately \$15,269,000 in FY 2006-07 and \$16,525,000 in FY 2007-08 will be devoted to management of lands by Department field staff. The majority of these funds (approximately 80%) will be allocated to the 19 staffed wildlife areas and ecological reserves, with the remaining 20% allocated to unstaffed wildlife areas and ecological

reserves. Approximately \$2,163,000 will be allocated to the development and management of private land conservation programs and \$1,127,000 will be allocated to program coordination and administration.

These funds will support the following projects and activities:

- Management of over 61,000 acres of wetlands to benefit resident and migratory waterfowl, shorebirds, and a suite of upland and special status species
- Management of 512,500 acres of special habitats and habitat for sensitive species
- Habitat management and maintenance activities on wildlife areas and ecological reserves
- Approximately 450 survey and monitoring efforts of important species and habitats on wildlife areas and ecological reserves to include mammals, birds, amphibians, reptiles, fish, native plants, vegetation, invasive species, water quality and environmental variables affecting species and habitats
- Eradication or reduction of 21 invasive species on a total of 14,000 acres on 33 wildlife areas and ecological reserves to improve habitat for important species
- Implementation of Best Management Practices on 11 wildlife areas and ecological reserves for the control of mosquitoes and prevention of West Nile Virus
- Completion of 14 Deferred Maintenance projects in FY 2006-07 with additional projects in FY 2007-08 to maintain Department facilities and protect worker and public health and safety
- Completion of management plans for 19 properties in FY 2006-07 and six properties in FY 2007-08 with four additional plans initiated in FY 2007-08
- Operation of state and federal waterfowl hunt programs to provide an estimated 95,000 visitor days annually for waterfowl and upland game hunting
- Provision of an estimated 1,000,000 visitor days for educational activities and/or wildlife viewing annually
- Development of regulations for recently acquired wildlife areas and ecological reserves, and updates of regulations for existing reserves in FY 2006-07 with adoption by the Fish and Game Commission in FY 2007-08
- Preparation of an estimated 25 proposals to the WCB for acquisition of important lands for the conservation of important species and habitats
- Management and monitoring of agreements with private landowners for the conservation of 41,000 acres of wildlife habitat

Additionally, the Program will continue exploring the development and implementation of a comprehensive automated management system as noted previously. The *Maximo* system which is currently successfully utilized by two other departments, including sister-agency State Parks, will be reviewed for potential use by the Department.

Item 3600-001-0001 Department of Fish and Game

2. Interim Reporting on Select Key Activities.

On or before January 10, 2007, Department shall provide a report to the Legislature (including budget and fiscal committees from both houses) on the budgeted activities for 2006-07 and 2007-08 the following program areas: (1) Department's enforcement program, (2) Marine Division, (3) land management and operations, (4) California Environmental Quality Act (CEQA) and Section 1600 program activities, and (5) conservation planning activities. For each of these activities, the department shall include a description of the program, an estimate of the budgeted resources dedicated to the program in 2006-07 and 2007-08, and a discussion of the key, measurable objectives of the programs for 2006-07 and 2007-08.

DEPARTMENT RESPONSE:

FY 2006-07 -- California Environmental Quality Act

PROGRAM DESCRIPTION

The Department of Fish and Game (Department) is vested with significant responsibility and authority in the implementation of the California Environmental Quality Act (CEQA) Environmental Review Program. This includes acting as a CEQA lead agency when the Department plans to implement its own projects and/or fund projects with public monies, or issues specific types of project authorizations, such as California Environmental Species Act (CESA) Incidental Take Permits (ITP) and Lake and Streambed Alteration Agreements (LSAA).

The Department can also act as a responsible agency while consulting with a lead agency during the CEQA process and when issuing project authorizations where the primary responsibility is to review an existing CEQA environmental document from another lead agency. The Department can make specific findings as to how the document addresses its CEQA responsibility in the issuance of its authorization.

Additionally, the Department can act as a CEQA Trustee Agency. In these situations, it has the unique role as the State's trustee for fish and wildlife resources and their habitats.

Finally, the Department also provides a broad CEQA coordination and consultation function while working with CEQA lead agencies in the 1) general development and project planning issues; 2) general meetings with counties and lead agencies to discuss CEQA issues, process or compliance; 3) coordination of county-wide or area wide wildlife protection strategies to facilitate CEQA compliance; 4) consultation on sensitive species conservation strategies; and 5) consultation on open space and CEQA mitigation land protection and management.

The Department has this general role in all of the CEQA Review sub-programs including CEQA Review, Timber Harvest Plan (THP) Review, and Water Rights Review. Successful implementation of this general CEQA planning and coordination role provides broad benefits for fish, wildlife, and habitat protection and conservation.

The Department has dedicated staff that performs the activities and tasks related to CEQA lead agency consultations. Specifically, they are responsible for:

- Pre-Project Consultation
- CEQA Document Triage Review
- Response to Notice of Preparation (NOP)
- Project Consultation to develop mitigation measures and mitigation monitoring.
- Review and Comment on CEQA Documents [i.e., Negative Declaration (NEG DEC), Mitigated Negative Declaration (MIT NEG DEC) and Environmental Impact Report (EIR)]

BUDGETED RESOURCES

The Department has approximately 20 PYs allocated to the CEQA Review Program for FY 2006-07. It intends to augment the program during this fiscal year by adding additional effort to the Program through three PYs by implementing the distribution of 10 new positions allocated in the FY 2006-07 authority for Resource Assessment, CEQA and Habitat Conservation Planning activities. This augmentation will increase the total level of effort for the CEQA Review Program to 23 positions statewide.

Expenditures for the CEQA Review sub-Program to support 20 positions are estimated at approximately \$2.66 million, including salaries and benefits, standard operating and overhead costs. Augmentation of three positions will add approximately \$399,000 to budgeted resources for a total of \$3.06 million for the statewide program for a total resource increase of 15 percent. These resource allocations are represented in the following table:

FY 2005-06 PROGRAM	AUGMENTATION	PROGRAM TOTAL FY 2006-07
20 Positions	3 Positions	23 Positions
\$2.66 Million	\$399,000	\$3.06 Million
28% Review Effort	5.4% (increase)	29.5% Review Effort

KEY MEASURABLE OBJECTIVES

It is the Department's objective to focus its CEQA Review efforts on those projects which may have the greatest effect on fish, wildlife, and habitat resources, with the goal of maximizing impact, avoidance minimization and mitigation for these projects.

To achieve this objective, CEQA Review Program staff conduct a desk "triage" review of the approximately 5,000 CEQA documents the Department receives annually, to identify the projects with greatest potential effect on fish, wildlife, and habitat resources. From those triaged documents, at current staffing levels the Department is able to provide a more detailed review and follow up on about 28% of the projects which have the greatest potential effects. This level of effort is the best measure of successful program implementation. The Department continuously seeks to augment program resources to boost this level of review effort.

The numbers in the table provided below are the actual numbers of CEQA documents received by the Department during the reporting period. Department Regions do not track the detailed review data needed to report review percentage and review type for all individual document types. However, on average, the Department performs detailed reviews for approximately 28% of the CEQA documents received at our current staffing level. Based on Department audit numbers, AB 3158 Fees are paid on 50% or less of the CEQA documents received for review.

FY 2005-06 CEQA REVIEW DATA BY REGION (JULY 1- JUNE 30)			
DFG REGION	CEQA DOCUMENT TYPE	TOTALS	ESTIMATED REVIEW (28%)
Region 1			
	<i>EIR</i>	6	
	<i>IS</i>	227	
	<i>NEG</i>	6	
	<i>NEG-MIT</i>	2	
	<i>NOP</i>	5	
Total		246	69
Region 2			
	<i>EIR</i>	51	
	<i>IS</i>	3	
	<i>NEG</i>	125	
	<i>NEG-MIT</i>	63	
	<i>NOD</i>	7	
	<i>NOP</i>	29	
Total		278	78

Region 3			
	<i>EIR</i>	22	
	<i>IS</i>	32	
	<i>NEG</i>	97	
	<i>NEG-MIT</i>	112	
	<i>NOE</i>	1	
	<i>NOP</i>	38	
Total		302	85
Region 4			
	<i>EIR</i>	34	
	<i>IS</i>	23	
	<i>NEG</i>	75	
	<i>NEG-MIT</i>	21	
	<i>NOP</i>	36	
Total		189	53
Region 5			
	<i>EIR</i>	41	
	<i>IS</i>	4	
	<i>NEG</i>	122	
	<i>NEG-MIT</i>	124	
	<i>NOD</i>	1	
	<i>NOP</i>	85	
Total		377	106
Region 6			
	<i>EIR</i>	60	
	<i>IS</i>	1	
	<i>NEG</i>	156	
	<i>NEG-MIT</i>	89	
	<i>NOD</i>	1	
	<i>NOP</i>	60	
Total		367	103
Region 7 (Marine Region)			
	<i>EIR</i>	26	
	<i>NEG</i>	6	
	<i>NEG-MIT</i>	13	
	<i>NOP</i>	20	
Total		65	18

EIR – Environmental Impact Report
 IS – Initial Study
 NEG – Negative Declaration
 NEG-MIT – Mitigated Negative Declaration
 NOD – Notice of Determination
 NOE – Notice of Exemption
 NOP – Notice of Preparation

Pending approval of the FY 2007-08 state budget, the Department anticipates a program augmentation, to include new PYs, to implement the Environmental Filing Fee increase mandated in SB 1535 for the CEQA Review Program. As a result of adding additional positions to the program, the Department estimates an increased level of review effort in the CEQA Program from 29.5% up to 50% as reflected below:

FY 2005-06	AUGMENTATION	PROGRAM AT FY 07-08 CLOSE
23 Positions	34 Positions	34 Positions
\$3.06 Million	\$4.5 Million	\$4.5 Million
29.5% Review Effort	20.5% (increase)	50% Review Effort

FY 2006-07 -- Timber Harvest Review Program

PROGRAM DESCRIPTION

A specific programmatic review that falls with the Department's CEQA lead agency consultations is the Timber Harvest Review Program (THP). Department CEQA staff performs a variety of activities and tasks related to THP, including:

- THP Desk Review
- THP Full Review
- Sensitive and T&E species consultations
- THP Pre-consultation and Landscape Planning or Permitting [e.g., Programmatic Timber Environmental Impact Report (PTEIR), Natural Community Conservation Plan (NCCP), Habitat Conservation Plan (HCP)]
- 1602/1611 Lake and Streambed Alteration Agreements
- THP Implementation and Effectiveness Monitoring
- Federal Lands Liaison
- Board of Forestry Liaison and Statewide coordination

Of these, Program efforts are focused on two levels of review for THP Documents.

Desk Review

Review of a THP or Non-industrial Timber Management Plan (NTMP) typically requires less than eight hours (average is two hours) work by an Environmental Scientist. The review must include 1) a scan and triage plan to determine if the plan warrants full review or species consultation; 2) entering mandatory fields into THP Track; and 3) review of the THP for 1611 compliance or notification. This level of review is considered a "Desk Review".

Full Review

A "Full Review" of a THP or NTMP includes all of the elements of a "Desk Review" and typically requires a minimum of eight hours (average is 40 hours) of work by an Environmental Scientist. This review must include 1) attendance at a pre-harvest inspection (PHI) (if scheduled by California Department of Forestry); 2) production of a report, letter, memorandum or e-mail with detailed, site-specific recommendations to reduce the level of impacts on the environment.

These THP Reviews are used to provide detailed recommendations to the Board of Forestry for the protection of fish, wildlife, and habitat resources with the goal of maximizing impact, avoidance minimization and mitigation for these projects.

BUDGETED RESOURCES

The Department has approximately 38 PYs allocated to the THP Review Program for FY 2006-07. Expenditures for the THP Review sub-Program to support 38 positions are estimated at approximately \$5.05 million, including salaries and benefits, standard operating and overhead costs. No changes in staffing or funding levels are anticipated in the current fiscal year. These resource allocations are represented in the following table:

FY 2005-06 PROGRAM	AUGMENTATION	PROGRAM TOTAL FY 2006-07
38 Positions	0	38 Positions
\$5.05 Million	0	\$5.05 Million
100% Desk Review 35% Full Review	0	100% Desk Review 35% Full Review

KEY MEASURABLE OBJECTIVES

It is the Department's objective to focus its THP Review efforts to achieve 100% desk review on all THP filings. The Department can then ensure it performs a full review on those projects which may have the greatest effect on fish, wildlife, and habitat resources. At the current level of staffing, the Department can achieve an average full review level of 35% state-wide. Measurement of these levels of effort is the best measure of successful program implementation.

The numbers provided below are the actual numbers of THP documents received by the Department during the specified reporting period:

FY 2005-2006 THP & NTMP REVIEW DATA BY REGION AND COUNTY (JULY 1- JUNE 30)						
	County	# Plans	Desk	% Desk	Full	% Full
Region 1	Humboldt	141	141		15	10.6
	Del Norte	17	17		5	29.4
	Trinity	18	18		13	72.2
	Siskiyou	23	23		18	78.2
	Shasta	42	42		33	78.6
	Lassen	8	8		6	75
	Modoc	2	2		0	0
	Tehama	7	7		6	85.7
Subtotal		291	291	100%	96	33%

Region 2*						
	Plumas	9	9		1	11.1
	Sierra	1	1		1	100
	Butte	9	9		1	11.1
	Nevada	6	6		1	16.7
	Yuba	5	5		1	20
	Placer	7	7		1	14.3
	El Dorado	13	13		3	23
	Calaveras	2	2		0	0
	Amador	1	1		0	0
Subtotal		53	53	100%	9	17%
Region 3						
	Santa Cruz	8	8		4	50
	San Mateo	2	2		1	50
	Napa	2	2		1	50
	Lake	2	2		0	0
	Sonoma	19	19		6	31.6
	Mendocino	67	67		28	41.8
Subtotal		100	100	100%	40	40%
Region 4*						
	Tuolumne	3	3		3	100
	Stanislaus	0	0			
	Merced	0	0			
	Mariposa	1	1		1	100
	Madera	1	1		1	100
	Fresno	9	9		9	100
	Tulare	2	2		2	100
	Kings	0	0			
	Kern	1	1		1	100
Subtotal		17	17	100%	17	100%
Total		461	461	100%	162	35%
*Region 2 & 4 Programs began 1/3/2006 NTMP – Non-industrial Timber Management Plan						

The Department anticipates it will maintain the current level of review, 100% of Desk Review effort and 35% Full Review effort, on an ongoing basis:

FY 2006-07	AUGMENTATION	PROGRAM AT FY 07-08 CLOSE
38 Positions	0	38 Positions
\$5.05 Million	0	\$5.05 Million
100% Desk Review 35% Full Review	0	100% Desk Review 35% Full Review

FY 2006-07 -- Lake and Streambed Alteration Program

Lake and Streambed Alterations Agreement (LSAA) – Section 1600 Program

PROGRAM DESCRIPTION

Fish and Game Code section 1602 requires any entity to notify the Department before conducting an activity that will substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use material from the bed, channel, or bank of any river, stream, or lake; or deposit or dispose of debris, waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream or lake. An entity notifies the Department of any project that may impact a river lake or stream by submitting a complete Notification (application) and the appropriate fee based on the Department's fee schedule.

The Department must determine whether an agreement is required for the proposed activity based on the information in the notification and any onsite inspection. An agreement is required if the Department concludes that the proposed activity could adversely affect a fish or wildlife resource. In these cases, the Department will submit a draft agreement to the entity that includes reasonable and prudent protective measures, taking into account the natural history, vulnerabilities and recovery potential of species and habitats at-risk. After the entity signs the draft agreement and returns it, the Department will sign the agreement after it complies with the California Environmental Quality Act ("CEQA"), thereby making it final.

Each notification goes through an initial review for application completeness. Typically, clerical staff assigns a notification number to the application, logs minimal information into Project Tracking, notes & attaches fees, and forwards the notification to specific individuals for agreement preparation, "no agreement necessary" determination, or approved by operation of law (Op-Law).

Notifications typically go through a Desk Review or Full Review. The level of review varies greatly from region to region and from reviewer to reviewer based on the number of agreements being processed, availability of trained staff and experience & knowledge of the agreement writer. When the number of notifications increase, the time available to process each agreement decreases. While a Full Review of each notification is the goal the Department would like to achieve, Desk Review becomes the only option as workload increases.

Desk Review typically includes the following range of activities:

- Review of the project description and construction plans – determine if the scale and scope of the project are clearly stated
- Review of CEQA documents – adoption or modification of the mitigation & monitoring program

- Evaluation of the project location – what are the impacts to natural resources – are there T&E species impacts -- what is the likely recovery time
- Develop avoidance measures – boilerplate BMPs or site specific recommendations
- Post project restoration – simple erosion control efforts to full-blown mitigation and monitoring plan
- Preparation of the Streambed Alteration Agreement and CEQA document .

Desk Review and preparation of the LSAA will typically take between two to eight hours to process. Notifications that have gone through this process still may end up receiving a “no agreement necessary” letter or approved by operation of law (Op-Law).

Full Review typically includes all the elements of Desk Review plus a range of the following activities:

- Site inspection – evaluate the impact of the project on natural resources and development of avoidance measures
- Meet with consultants, operators and contractors – evaluate design options that may reduce project impacts – develop mitigation strategy
- Consultation with other regulatory agencies for consistency
- Full consideration of Listed Species Impacts – review of California Natural Diversity Data Base (CNDDDB), consult with Department Biologists; develop protocol for species surveys to be used by the applicant

Full Review and preparation of the SAA will typically take between 12 to 40 hours to complete (travel time and meetings make up a big portion of this time).

BUDGETED RESOURCES

The Department has approximately 26 positions of effort allocated to the LSAA Program for FY 2006-07. The Department will augment the program during the current fiscal year by adding four positions to the Program as a result of implementing the new fee schedule that was approved in November 2005. This augmentation will increase the total level of effort for the CEQA Review Program to 30 positions statewide.

Expenditures for the LSAA Program to support 26 positions are estimated at approximately \$2.7 million, including salaries and benefits, standard operating and overhead costs. An augmentation of four positions will add approximately \$532,000 to budgeted resources for a total of \$3.2 million for the statewide program. These resource allocations are represented in the following table:

FY 2005-06 PROGRAM	AUGMENTATION	PROGRAM TOTAL FY 2006-07
26 Positions	4 Positions	30 Positions
\$2.7 Million	\$532,000	\$3.2 Million
21% Op-Law	24% (decrease)	16% Op-Law

KEY MEASURABLE OBJECTIVES

The Department endeavors to review all notifications it receives annually. Not every notification will require an agreement; emergency notifications are an example of this, but they still require resources to review and process. Key measurable objectives for the LSAA Program are the number of projects for which the Department is able to complete agreements. Increases in program staffing should lead to an increase in the number of agreements completed within statutory deadlines. In contrast, the number of projects that are approved by operation of law (Op-Law) reflect those agreements the Department has not been able to complete within statutory deadlines. The Department currently receives approximately 3,000 LSAA notifications annually, and at current staffing levels, approximately 650 or 21% are approved by Op-Law per year. Within the Department's current tracking system, the most straightforward way to measure the success of staff augmentation and program efficiency improvements is to measure the total number of agreements issued and the reduction in projects approved via Op-Law.

- The following table reflects the number of 1) 1600 notifications received, by region; 2) 1600 agreements reviewed, reported by region and level of review; 3) 1600 Agreements that were issued reported by region; 4) CEQA documents prepared by DFG as the lead agency for a 1600 agreement; and 5) 1600 agreements which became operational by law, reported by region.

FISCAL YEAR 2005-06 LSAA NOTIFICATION BY REGION July 1, 2005 - June 30, 2006*				
Region	# Notifications Received	# Issued	# DFG Lead	# Op-Law
1	597	284	2	130
2	445	208	1	36
3	996	226	2	207
4	218	58	0	9

5	577	78	1	144
6	289	21	0	116
Bay Delta	3	3	0	0
Total	2,996	878	6	642

*Data extracted from 1600 Project Tracking on August 28, 2006 and regional counts of "emergency notifications."

Because notifications are in different stages of the process, and the specific data must be extracted from processing transaction codes entered in Project Tracking, there are variations in notification counts. This is also true in the case of notifications that were approved by Operation of Law, or where the Department acted as Lead in preparing an environmental document. Transaction codes are entered into Project Tracking as each phase of process is completed.

The Department anticipates it will maintain the current level of review on an ongoing basis:

FY 2006-06 PROGRAM	AUGMENTATION	PROGRAM TOTAL FY 2006-08
34Positions	0	34 Positions
\$3.73 Million	0	\$3.73 Million
11% Op-Law	0	11% Op-Law

Item 3600-001-0001 Department of Fish and Game

2. Interim Reporting on Select Key Activities.

On or before January 10, 2007, Department shall provide a report to the Legislature (including budget and fiscal committees from both houses) on the budgeted activities for 2006-07 and 2007-08 the following program areas: (1) Department's enforcement program, (2) Marine Division, (3) land management and operations, (4) California Environmental Quality Act (CEQA) and Section 1600 program activities, and (5) conservation planning activities. For each of these activities, the department shall include a description of the program, an estimate of the budgeted resources dedicated to the program in 2006-07 and 2007-08, and a discussion of the key, measurable objectives of the programs for 2006-07 and 2007-08.

DEPARTMENT RESPONSE:

FY 2006-07 -- Conservation Planning
--

PROGRAM DESCRIPTION

The Department's Conservation Planning Program consists of two main sub-programs: 1) regional conservation planning; and 2) mitigation/conservation banking. These two programs are statutorily mandated by the Natural Community Conservation Planning (NCCP) Act (California Fish and Game Code Section 2800 et. seq.) and the Sacramento-San Joaquin Valley Wetlands Mitigation Banking Act (California Fish and Game Code Section 1775 et. seq.).

Program staff in Sacramento headquarters provides statewide policy development, oversight, and coordination for these activities. Program staff also provides permitting assistance for NCCPs and maintain a statewide mitigation and conservation banking database that tracks these banks and provides semi-annual reporting to the Legislature. Regional program staff is more directly involved in working with local applicants on specific plans and banks.

The use of NCCPs has significantly expanded in California in the last few years. More than thirty plans are now under development in five of the seven Department Regions (South Coast Region, Inland Deserts and Eastern Sierra

Region, Central Coast Region, San Joaquin Valley Southern Sierra Region, and the Sacramento Valley Central Sierra Region). At least two additional plans have the potential to become NCCPs.

BUDGETED RESOURCES

In FY 2005-06, the program spent approximately \$1,700,000 in 2005-06, primarily for 15.8 positions. Funding came from the following sources:

Fund Source	Positions	Dollars
General Fund	8.8	\$942,300
Environmental License Plate Fund	6.0	\$648,000
State Wildlife Grants	1.0	\$108,000
TOTAL	15.8	\$1,698,300

The recent augmentation of 7.3 new positions specifically for conservation planning has provided the regional conservation planning program with 23 positions and an annual budget of approximately \$2.5 million.

KEY MEASURABLE OBJECTIVES

Ten NCCP plans have been approved to date, in the South Coast and Inland Desert Eastern Sierra Regions and three additional plans have permits pending (Coachella Valley, Eastern Contra Costa County, and Rancho Palos Verdes). The Department has committed to provide significant resources to the implementation of these plans: land acquisition, adaptive management of Department lands in the reserve system, and biological and compliance monitoring.

It is expected that conservation planning efforts will continue at the same level in the next two years. This will include completed and permitted regional conservation plans throughout the state, which are collaborative efforts and dependent on the support and involvement of local government, private organizations and local landowners; consistent application of policy for conservation plans and mitigation/conservation banks; success in obtaining federal grant funds for conservation planning and land acquisition; and the protection of habitat at the ecosystem scale sufficient to ensure recovery of sensitive species.

Between July 2005 and September 2006, the Department conducted a compliance check on 28 wetland and conservation banks. Compliance checks were based on one or more of the following specific criteria, including but not limited to: 1) the bank submitted an annual monitoring report which was reviewed by the Department's Regional Offices; 2) the bank has an established

endowment fund held by the Department for which mitigation account reports are issued and reviewed twice a year; or 3) the bank has submitted a proposal for amending their bank agreement (triggering a review of existing bank operations). The number of easements currently held by the Department is reflected in the following table, by Region:

Department Region	# of Conservation Easements
1 - Northern California	28
2 - Sacramento Valley-Central Sierra	75
3 - Central Coast Region	106
4 - Southern Sierra and San Joaquin	23
5 - South Coast Region	26
6 - Eastern Sierra and Inland Deserts Region	17
Total	275

Since July 2005, fifty-eight (58) conservation easements totaling 27,978 acres were monitored by the Department's Regional staff. It is expected that mitigation banking efforts will continue at the same levels over the next two years and will include the timely review and processing of banking agreements, including compliance checking, the timely review, processing, and recording of conservation easements.

Item 3600-001-0001 Department of Fish and Game

3. *Interim Progress Report on Tasks Associated With Corrective Action Plan.*

The department shall make progress reports for each task associated with its corrective plan available quarterly through January 2008 for legislative review upon request. These tasks include: (1) Review Management Tools for Monitoring Budget Allotments and Activities; (2) Review of Methodology Used to Project Revenues; and (3) Department Program Budget Structure Development; (3A) Department Project Codes Review, (3B) Program Activity Review, (3C) Cal STARS Index and PCA Review, (3D) Index/PCA Budget Allotments and Program Activities Review, (3E) Index and Program Alignment Review.



DEPARTMENT RESPONSE:

**FY 2006-07 -- Progress Report on Corrective Action Plan
by CPS, Human Resource Services**

BACKGROUND

In response to the Phase 1 review of the Department of Fish & Game's (Department) accounting system performed by CPS, the Department has implemented a Phase 2 review with CPS that focuses on implementing Phase 1 recommendations and addressing specific Legislative Analyst's Office (LAO) reporting requirements defined in the Supplemental Report of the 2006 Budget Act. These Department-identified Phase 2 tasks include:

1. Review management tools for monitoring budget allotments and activities
2. Review the methodology used to project revenues, and
3. Department program budget structure development, including:
 - A. Department project codes review
 - B. Program activity review
 - C. CalSTARS index and PCA review
 - D. Index/PCA budget allotments and program activities review
 - E. Index and program alignment review

This project status report for Phase 2 of the Department's Fiscal Systems Review covers tasks performed on the 2006 Corrective Action Plan through October 2006.

The Phase 2 project contract was executed on September 20, 2006; however, Department efforts to implement corrective actions have been ongoing since January 2006. The project has a completion date of December 31, 2007 with the delivery of a final report. The project is on time and on budget.

Phase 1 Corrective Action Plan Task Status through October 2006

The following describes Department actions taken and verified by CPS through October 31, 2006 to address specific Phase 1 review recommendations and LAO supplemental report task #1 (review management tools for monitoring budget allotments and activities). CPS planned action and evaluation tasks are also described.

1. Evaluation of Pilot Automated Timesheet Submission.

The Department Accounting and Information Technology Branch conducted a pilot project to determine the feasibility of submitting automated employee timesheets. The pilot project indicated that timesheet automation would be feasible if the employee's social security number can be protected and an electronic employee/supervisor signature is possible. However, timesheet automation is not feasible with the Department's current information technology application.

CPS Planned Action & Evaluation

No change during October. CPS needs to discuss this further with the Department.

2. Bring supervisors and managers into compliance with "Employee and Supervisor Time" Reporting Guidelines.

A Departmental Bulletin #2006-04 was issued May 16, 2006 to all employees that cited employees and supervisors responsibilities relative to preparing and approving accurate and timely timesheets. The bulletin included time reporting guidelines.

CPS Planned Action & Evaluation

In October, the CPS evaluation of the Bulletin indicates that it adequately describes the timesheet preparation and approval responsibilities of employees and supervisors. The Bulletin was distributed to all Department employees. The internal Audit Branch will test compliance with the Bulletin guidelines (see item #5).

3. Develop a monthly reporting system for evaluation of labor distribution reports.

Department Administration has developed a monthly report which will alert managers to the time charged to various PCAs and activities by their employees. These reports are intended to be used by managers as an auditing tool to ensure employees properly account for their time. Pilot reports are expected to be run during the October – December, 2006 time period.

CPS Planned Action & Evaluation

The pilot implementation date has been delayed until January 1, 2007, due to the need to update the Employee Master File.

4. Assure accuracy of documentation of labor cost charged to Federal Assistance Grants.

The Department Director issued Bulletin #2006/03 in July 2006 to Department federal project leaders which states that State and in-kind matching sources and amounts must be clearly identified and documented to draw federal grant funds. This bulletin included a Federal Grant Summary that detailed the various items that must be collected to support federal grants. The Department created and filled the new position of Federal Grant Manager and held regional training meetings co-sponsored with the Federal Wildlife Service.

CPS Planned Action & Evaluation

In October, CPS discussed the Bulletin #2006/03 procedures with the new manager of Federal Grants. He indicated that the procedures are considered interim and need to be clarified for field use. Over the next 60 days, the Department will develop the permanent procedures. His organization will provide training to field staff and monitor the use of the new procedures.

Since the new procedures will not cover reimbursement for federal contracts and cooperative agreements, CPS wants to know how the Department intends to handle these matters. The payment vehicles appear to contain many of the same documenting and compliance problems as federal grants. Apparently these contracts and agreements do not flow through the new office of the Federal Grant manager. The Department should analyze these areas and develop adequate procedures for departmental use.

CPS will determine whether federal project leaders took specific action as a result of these new procedures by examining a sample of transactions.

5. Conduct internal control audits in accordance with FISMA.

The internal Audit Branch (IAB) plans to conduct the next cycle of internal control audits on December 31, 2007. Time reporting practices will be included in this audit.

CPS Planned Action & Evaluation

No change during October. CPS will review the internal Audit Branch schedule of audits and discuss with the internal Audit Branch Manager.

6. Require Accounting Management to review and approve all adjusting entries prior to entry into CALSTARS and determine if there is an impact to current cash balance in the Fish and Game Preservation Fund.

The Accounting Services Branch (ASB) has issued procedures for making adjustments to accounting records. These instructions describe the approvals needed to implement adjustments.

CPS Planned Action & Evaluation

In October 2006, CPS reviewed the new written procedures and they appear adequate to guide and provide support for adjusting entries to the accounting records. Object class 591, "Special Adjustments," to CalSTARS require approval of the ASB Branch Chief and Assistant Deputy Director, Fiscal Administration.

In our opinion, these procedures need to be dated and staff advised where the instructions are located. The IAB intends to review the use of these procedures in its next audit. CPS will review the results of the IAB audit.

7. Review and develop process improvements and efficiencies regarding accounting special adjustments.

This project is included in the Phase 2 review. The Department plans to use a retired annuitant to work on this project.

CPS Planned Action & Evaluation

No change during October. CPS will follow-up on the status of this project.

8. The Internal Audit Office will verify that adjusting entries are proper, documented and approved in its Financial Integrity and State Managers' Accountability Act (FISMA) financial statement audit.

This audit will be conducted during 2006-07.

CPS Planned Action & Evaluation

No change during October. CPS will follow-up on the IAB audit results.

9. Quantify any immediate impacts to FGPF cash balance.

Nothing to report.

CPS Planned Action & Evaluation

The Department assessed the impact to the FGPF as a part of determining a repayment plan of OSPR funds. **As of October 2006, no further action is required.**

10. Develop a plan to complete payment to OSPR.

Department has developed a repayment plan that OSPR approved. Department has also developed a process to establish the manner in which PFAs are handled and financed through OSPR funds. PFAs utilizing OSPR funds require approval by the Department Assistant Deputy Director, Fiscal and OSPR Administrator.

CPS Planned Action & Evaluation

No change in October. CPS will review the repayment plan and PFA process and discuss with OSPR representatives.

11. Develop a plan to repay other borrowed funds.

We understand the General Fund enacted budget contains a General Fund transfer to balance accounts effective July 1, 2006. Department Accounting will provide a copy of the Budget Act.

CPS Planned Action & Evaluation

No change in October. CPS will review the 2006-07 Budget Act and discuss with appropriate Department staff.

12. Develop a policy and process for PFA usage requiring Assistant Deputy Director review and approval.

In July 2006, Department developed updated desk procedures to handle PFAs.

CPS Planned Action & Evaluation

In October, CPS reviewed the updated desk procedures issued by ASB. The procedures appear to adequately describe the processes, approvals required and support needed for PFAs. These procedures include special procedures for OSPR, Bond and Federal funds. The procedures should indicate where they are located so that staff can readily access them.

The Internal Audit Office (IAB) intends to review the use of these procedures in its next audit. CPS will review the IAB audit.

13. Update Indirect Cost Rates.

Department Administration has updated and provided CPS with indirect cost rates and changes for both FY 2005-06 and FY 2006-07.

CPS Planned Action & Evaluation

No change in October. CPS will review the final indirect cost allocations for FY 2005-06 and assess the reasonableness of the result.

14. Setup and utilize a uniform process for collecting Department matching cost for federal reimbursements.

The Director's Bulletin 2006/03 was issued July 18, 2006.

CPS Planned Action & Evaluation

See Item #4 for a description of the new process.

CPS will evaluate the procedure by reviewing a sample transaction for compliance with the procedure.

15. Create process for reporting Oil Spill Prevention and Response (OSPR) revenues.

Department IT is working on an automated method to provide OSPR with timely revenue information.

CPS Planned Action

No change in October. CPS will follow-up on the status of this project and discuss with OSPR representatives.

16. Provide OSPR with detailed information regarding composition and method of allocating distributed Administration to OSPR funds.

Department Accounting indicated that OSPR representatives have received this information.

CPS Planned Action & Evaluation

No change in October. CPS will discuss this issue with OSPR representatives.

17. Provide OSPR with copies of communications from control agencies relative to Prorata and SMIF rates and computations.

Department Accounting indicated that OSPR has been provided with this information.

CPS Planned Action & Evaluation

No change in October. CPS will discuss this issue with OSPR representatives.

18. Determine the procedure for including OSPR in the determination of the method used to allocate SMIF interest to Fund 0207 sub account.

Department Accounting is in the process of working this issue through with OSPR.

CPS Planned Action & Evaluation

No change in October. CPS will follow-up with Department Accounting and discuss with OSPR representatives.

19. Establish formal OSPR approval procedures relative to making PFA requests to the State Controller.

Department developed formal approval procedures.

CPS Planned Action & Evaluation

See Item #12 for a description of the new procedures.

CPS will review and discuss the procedures with OSPR representatives.

Department actions taken to address specific Phase 1 review recommendations and Supplemental Report task (2) Review of Methodology Used to Project Revenues, (Phase 2 review) include:

20. Review the revenue projection methodology.

The Department Administration indicated that some changes have been implemented and the department is expecting assistance from CPS on this matter.

CPS Planned Action & Evaluation

In October, CPS provided the Department with separate reports on revenue projection methodologies for selected dedicated funds and non-dedicated revenues. Attachment A summarizes the scope and methodology of the funds and revenues reviewed and our findings and recommendations. **As of October 2006, this task is complete with no further action required.**

21. Posting of timely revenues.

Department is currently conducting a pilot project with an Automated License Data System (ALDS), a point-of-sale system that electronically transfers funds from the retailer to the department. The system is currently being tested for fishing and hunting licenses and should improve revenue posting timeliness. In addition, Department is reviewing the current monthly revenue identification and posting system. The current process for posting revenues does not provide complete revenue information until up to 60 days after month-end. Department does not intend to make any changes to the current system prior to implementing the ALDS process statewide. The ALDS implementation will include deployment of 1,600 terminals to vendors. Vendors will be able to print licenses on generic stock via a thermal printer. Funds will be transferred from the vendors electronically. All information entered by the vendor will be available at Department in real-time. Neither Department nor the vendors will be required to maintain inventories. The database will have query capability allowing Department to access and print information in varying formats. In addition, the system will allow Department to sell licenses via the internet and telephone. The contractor developing the system for Department has installed similar systems in 15 other states. The goal for full implementation is December 31, 2007.

CPS Planned Action & Evaluation

CPS staff met with Department Revenue officials in October 2006 to discuss the current revenue posting process and the ALDS process. We noted that ASB has assigned one of its busiest staff as liaison and that the Budget function has not yet assigned a liaison for this project. The interface with these two departments is critical and CPS will continue to follow-up with ASB, Budget and Revenue staff.

Department actions taken to address specific Phase 1 review recommendations and LAO Supplemental Report task (3) *Department Program Budget Structure Development*, (Phase 2) include:

22. Review funding assignments of PCAs for appropriateness (#3c & 3d).

Department has included this review as a part of Phase 2. The Fiscal System Review (FSR) Team is responsible for reviewing PCA funding assignments.

CPS Planned Action & Evaluation

In October, CPS participated in two meetings concerning the specific number of Program Cost Accounts (PCA) and current policies and processes used to create and manage PCAs. A comprehensive list of PCAs with allotment and expenditure

information used in FY 2005-06 will be compared to a list of PCAs being used in FY 2006-07 to identify unnecessary PCA use. The resultant comparison will be

forwarded to programs and organizations for their review and revision. Criteria will be established to eliminate unnecessary PCAs. The task completion due date is November 26, 2006.

Department actions taken to address Phase 1 review recommendations not specifically covered in the LAO's Supplemental Report but are a part of the Phase 2 review, include:

23. Improve Accounts Receivable collections.

The Department Accounting Service Branch (ASB) has prepared aged Accounts Receivable (AR) status reports. The Department Accounting Branch Manager indicated that ASB lacks sufficient staff to pursue AR collections on an "on going" basis but has collected \$200,000. To add collections capability, the Department is reviewing options to implement a Department Cost Recovery Unit within ASB.

CPS Planned Action & Evaluation

During October, ASB prepared and furnished CPS with an aged status report that shows outstanding AR of \$17.6 million as of May 31, 2006. Approximately 72% of the total outstanding amount, or \$12.6 million, ranges from one to 17 years old. The Department expects to liquidate \$3.5 million of the delinquent AR within FY 2006-07. Attachment B describes our review of the situation and recommends that ASB start immediate aggressive collection efforts on the highest potential AR accounts.

CPS will review the current status reports for up-to-date AR results and ascertain whether all significant receivables are being reported and followed-up for collection purposes.

24. Improve collections of federal reimbursements.

Department Accounting management has developed procedures to support federal reimbursement that were issued as Directors Bulletin 2006/03. We also understand that improved procedures for federal draw-downs have been developed.

CPS Planned Action & Evaluation

Refer to Item #4 for a description of the new procedures. CPS will review and evaluate the Department federal drawdown and reimbursement procedures.

25. Improve systems for collecting and remitting federal reimbursement receipts.

Department issued the Directors Bulletin 2006/03.

CPS Planned Action & Evaluation

In October, ASB indicated that desk procedures were developed to collect reimbursements for Federal Aid project costs through the Department of Health and Human Services Smartlink electronic funds transfer system and the Financial

Assistance Disbursement System administered by the National Oceanic & Atmospheric Administration (NOAA) Financial Division.

CPS will evaluate the new procedures to determine how they facilitate the federal reimbursement process, including verifying the procedure issuance date, determining staff access to the procedures, and sampling current transactions for compliance with the procedures.

26. Perform timely fund reconciliations.

Department Accounting management reports that approximately 60 funds, except the General Fund, have been reconciled timely as of year-end.

CPS Planned Action & Evaluation

In October, ASB furnished CPS with a listing that shows all funds reconciled to the State Controller's records as of September 8, 2006. CPS will review the reconciliations in the year-end report and determine whether all reconciliations have been performed and will also determine if the reconciliation satisfies the questions raised by previous auditor reports.

27. Repay the \$1.5 million Loan to the Native Species Conservation and Enhancement Account.

Department Administration indicates the loan was approved for repayment in July 2006. However, the department has since determined the actual interest due requires an additional \$265,000 payment. The department has recently received approval from the Department of Finance (DOF) and the legislature to accommodate the remaining payment from reserves within the FGPF.

CPS Planned Action & Evaluation

No change in October. CPS will examine year-end records and current year transactions to document when the repayment is in fact made, and will review the Department/DOF communications, when available, to confirm the accuracy of the remaining amount due.

28. Improve remittance to the State Treasurer and eliminate lost interest earnings.

Department Accounting management indicated that all funds are deposited immediately into the bank. ASB has eliminated all lags in remittances relative to uncleared collections.

CPS Planned Action & Evaluation

No change in October. CPS will review the current remittance process.

29. Assess the appropriate design, structure and staffing levels for the Accounting Services Branch.

CPS is addressing this matter in Phase 2.

CPS Planned Action & Evaluation

In October, CPS met with ASB management and staff to review the organizational structure, vacancies, facility layout, backlogs in travel expense claims, vendor/phone/CalCard invoices, timesheet data entry, and funds reconciliation. CPS also provided ASB management with information on tax-exempt leasing of equipment and vehicles, and a referral to another agency that has successfully implemented Callaters, an online process used by state agencies that should help reduce the travel expense claim backlog.

30. The Internal Audits Branch should report to the Chief Deputy Director.

As of August 2006, the Internal Auditor reports to the Chief Deputy Director.

CPS Planned Action & Evaluation

The recommendation was implemented in August 2006 with no further action required.

31. Report on the repayment status of \$2.2 million of borrowed OSPR funds.

Department Accounting management will provide information on the current status of these borrowed funds.

CPS Planned Action & Evaluation

No change in October. CPS will evaluate the fund status report and discuss with OSPR representatives.

Department actions taken to address recommendations not covered in the Phase 1 review but included in the LAO's Supplemental Report task (3) *Department Program Budget Structure Development, (Phase 2)* include:

32. Review department project codes (#3a).

The Department uses more than 200 CalSTARS codes to capture and aggregate Federal grant (0890) and state reimbursement (0995) project codes. In FY 2005-06, the Department had excess Federal authority due to the lack of matching funds and also had excess reimbursement authority. The objective is to review the assignment and usage of project codes and update or develop policies and procedures governing the correct use of project codes. The planned due date has been extended until November 29, 2006.

CPS Planned Action & Evaluation

In October, preliminary discussions were held concerning current policies and procedures. Project codes must be aligned with PCA codes. More in-depth discussions are required with the Grant Unit. CPS will follow-up to determine the best usage of project codes and ways to maximize authority.

33. Review program activities (#3b).

The Department has recently restructured program component activities to reduce the number from 800 to 137. Alternative proposals have been presented to

Regional Managers. The objective is to develop a new component listing that clearly captures the department's core business functions. The planned due date is November 5, 2006.

CPS Planned Action & Evaluation

In October, the Department developed and reviewed initial program component lists. A final component listing was adopted by Regional Managers on October 24th along with changes to the Department program element structure. Selected group members will work with the programs to develop new program component descriptions, component 711 designations, outputs and outcomes. CPS will follow-up to determine if the work is satisfactorily completed on time.

34. Review CalSTARS Indices and PCA codes (#3c).

The Department currently has six major programs, eleven major organizations, over 230 CalSTARS Indices and over 1,000 PCAs. The objectives are: 1) determine if Indices can be recoded to be more structurally consistent within the organization and better aligned with program resources, and 2) find ways to eliminate or consolidate unnecessary PCA codes. The planned due date is November 26, 2006.

CPS Planned Action & Evaluation

In October, CPS observed discussions concerning the use and number of PCAs but there have been no discussions concerning Indices. CPS will follow-up to determine if the work is satisfactorily completed on time.

35. Review Index/PCA budget allotments and program activities (#3d).

The Department has hundreds of Index/PCA budget allotments (resources) distributed to eleven major organizations. These resources are not electronically system-wise linked to the program activities they are budgeted to perform. There is a Department e-system called 'Budget Management System' (BMS) for the budget and allocations, CalSTARS for Accounting, and a parallel system for accounting of program activities through labor distribution. The objective is to develop a new coding structure to allow the establishment of statewide Index/PCA budget allotments for all program components. The planned due date is December 31, 2006.

CPS Planned Action & Evaluation

In October, there were no discussions held on this item. The completion of this item is contingent upon the development of a new list of program components and the establishment of PCA criteria. CPS will follow-up to determine if the work is satisfactorily completed on time.

36. Review Index and program alignment (#3e).

The Department has eleven major organizations that perform work for specific programs. Resources are distributed to each organization by Index/PCA. A division oversees each of the six major budgeted programs (20, 25, 30, 40, 50 and 70). The objective is to ensure that program funds are fully aligned with the

organizational staff that perform the work. The planned due date is December 17, 2006.

CPS Planned Action & Evaluation

In October, there were no discussions held on this item. The completion of this item is contingent upon the development of a new list of program components and possible program elements changes. CPS will follow-up to determine if the work is satisfactorily completed on time.

Potential Problems and Anticipated Difficulties

The FSR team will be circulating documents for review by the various programs and organizations which may result in project delays. Department management needs to support the review process and encourage timely document review department-wide.

Contract Cost/Schedule Status

The approved hours are 1,000 and the Phase 2 budget is \$150,000, respectively. The following table reflects the progress to date:

Category	Sep 2006	Oct 2006	Nov 2006	Dec 2006	Total
Contract Hours Expended	28	163.25			191.25
% of Total Hours Expended	2.8%	16.3%			19.1%
Total Fees Expended	\$4,620.00	\$22,261.00			\$26,881.00
Travel Expended	\$0	\$0			\$0
Total Contract Expenditures	\$4,620.00	\$22,261.00			\$26,881.00
% of Contract Expended	3.1%	14.8%			17.9%
Est. Expenditures to Completion	\$145,380.00	\$123,119.00			

Bold – actuals; Italics – estimates

DEPARTMENT OF FISH AND GAME -- FISCAL SYSTEM REVIEW

Summary of Department Revenue Projection Methodologies for Selected Dedicated Funds and Non-Dedicated Revenues

Introduction

CPS was asked to assist Department staff in reviewing their revenue estimating methodology for the Fish and Preservation Fund to determine if improvements could be made. This Fund contains 25 dedicated accounts and non-dedicated revenues. Separate revenue projections are done for each of the dedicated funds and for the non-dedicated revenues. The following summarizes the scope and methodology of the funds and revenues reviewed and our findings and recommendations. Detailed reports have been provided to the Department for both account/revenue types.

Scope and Methodology

Department staff provided the revenue estimating methodologies used for six of their dedicated funds: Duck Stamp, Bighorn Sheep, Herring Tax, Steelhead Trout, Wild Pig, and Abalone Restoration. CPS reviewed the methodologies provided and examined alternative approaches. In addition, CPS analyzed the non-dedicated revenues in the Fish and Game Preservation Fund to assess the best approach to forecasting these revenues. Statistical relationships between the base for these revenue sources and economic, demographic, precipitation, fee levels, and the Department warden data were explored using regression analysis. Alternate approaches to trend analysis were also considered.

Dedicated Fund Findings and Recommendations

Department staff currently use trend analysis for projecting the number of items that will be sold for the duck stamp, steelhead report card, abalone stamp, and wild pig tag. These estimates are then adjusted for any changes in law and regulations. The revenue forecast is then calculated by multiplying the expected number of sales by the fees in the upcoming year. CPS found that:

- Purchases of duck stamps have declined 62% since 1971 - at an average annual rate of 2.8 %. Department staff currently use the 10-year trend to project sales, which in our opinion, provides the best approach.
- The number of steelhead report cards has also fallen over the long term. Since 1993, the decline averaged 4.1 percent per year. The number of steelhead report cards showed a statistically-significant link to the California unemployment rate. It is unclear whether, in fact, this makes sense and more people fish for steelhead in bad economic times, or whether this is a spurious correlation. The Department's current method of using trend analysis for the most recent few years appears to be the most reasonable approach.

- Except for the three years from 1999 to 2001, abalone stamp sales have been in the range of 35,000 to 37,000 annually on a license year basis. Given this stability in the number of stamps sold, trending from the most recent year's values and applying the appropriate fee for that year should provide a reasonable estimate.
- The number of wild pig tags has been growing at an average annual rate of about 4.3 over the last 10 years. Even on a per capita basis, these tags have increased over time. Wild pig tag growth was correlated with population, personal income, and general economic growth. This probably reflects the gradual upward trend in all of these variables over time, because a simple time trend produced almost as good a fit. Therefore, using the trend in the number of tags is preferable because it eliminates the need to forecast other variables in order to project tags.

Revenues to the Bighorn Sheep Dedicated Account are primarily derived from special fund raising tags. To project fund revenues, the number of fund raising tags issued is multiplied by the revenue that was raised by the auction of that number of tags in recent years. According to Department staff, the number of bighorn sheep tags is known for the upcoming year when revenue projections must be prepared. Only the amount raised by the tags must be estimated. Using trends in the amount raised by these tags should result in a reasonable forecast.

Projections for the Herring Dedicated Account are based upon the herring population, which is estimated based on field surveys. Revenues come primarily from landing taxes. The number of herring stamps sold was stable initially, but has been declining at an average annual rate of 5.0 percent per license year for the last three years. The current revenue projections assume that the entire quota will be caught. To assess the appropriateness of this assumption, perhaps the prior year's landings can be compared with the quota for that year. If this could be done for several years, perhaps a trend in landings could be determined which might improve the revenue forecast. Alternatively, if this cannot be done, looking for trends in the total landing revenue might be useful.

Recommendations

Trend analysis is a good choice for forecasting when explanatory variables are not available, such as the case with the dedicated funds. There are different ways of determining trends, however the annual average percent change in the fee base (the number of stamps/tags/permits) is a reasonable approach. This can then be multiplied by the appropriate fee for each year and the result allocated to fiscal years based on historical patterns. Using license year data for the base forecast is preferable to fiscal year data because fee changes occur by license year.

The relatively small number of fee payers in each of these programs makes revenue projections inherently challenging. Also, factors affecting public preferences for these activities, fluctuations in the hunted/fished population, weather conditions, changes in government regulations, and other variables affecting these revenues are difficult or impossible to anticipate. Therefore, the difference between the forecast and actual revenues can be expected to be relatively large. Conservative projections and a reserve may be necessary to help protect against budget shortfalls in these accounts.

Non-Dedicated Revenues Findings and Recommendations

Two-thirds of the non-dedicated revenues to the Fish and Game Preservation Fund come from the sale of fishing licenses. Fishing and hunting license revenues together comprise 87 percent of the non-dedicated revenues. The total number of licenses purchased has declined over time, despite population increases. The following describes our findings and recommendations concerning sport fishing and hunting.

The types of sport fishing licenses issued have varied over time; however the total number of licenses purchased has remained roughly in the 2 to 2-1/2 million range annually. Since the mid-1980's, the number of licenses have been declining at about 0.8 percent annually. Due to fee increases, sport fishing license revenues have grown by about 6 percent per year over the long term.

The 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation issued by the U.S. Fish and Wildlife Service (USFWS) found the number of fishing participants nationally to also be declining since the mid-1980's. This probably indicates that nation-wide, rather than state-specific, factors are driving California's trends.

The Outdoor Industry Foundation conducted a study of various types of outdoor activities in 2005 and found both the number of participants and the number of fishing outings had declined. The study indicated other activities are capturing share from outdoor activities in general. In general, home-centered, sedentary activities were found to be gaining market share, while outdoor activities were losing share.

The number and types of sport fishing licenses have changed over time. The largest number of licenses has always been annual resident licenses but the number of these licenses sold each year has been declining. The number of nonresident licenses has grown, but they represent a very small portion of the total number of licenses sold.

CPS found that the license fee (adjusted for inflation) was statistically significant in explaining the number of resident fishing licenses purchased. Real increases in the fee had a negative effect on the number of sales. Given the relatively low level of fees compared with alternative leisure activities, this result is somewhat surprising.

Purchases of one- and two-day licenses appeared to be related to the real cost of the annual license. As the fee for the annual license went up, more people seemed to shift to short-term licenses. Nonresident licenses did not show a similar sensitivity to price.

Since 1970, the number of hunting licenses purchased annually has been declining by 2.6 percent per year. Over the last decade the decline has slowed to a little over 1 percent per year. Due to regular fee increases, revenues have grown over this period.

The number of hunters in the U.S. has also been in decline since the mid-1970's, according to the 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation issued by the U.S. Fish and Wildlife Service (USFWS).

Reductions in big game hunting quotas over time are probably one reason for the decline, although we did not have the data to test this statistically. The 2006 Outdoor Industry Foundation study cited earlier indicated that there was a decline in commitment-heavy activities in favor of activities that could be "done in a day." This could be a factor in the decline seen above. The USFWS survey also found that

hunters who didn't hunt as much as the prior year most commonly cited a lack of time or family/work obligations as the reason.

Department staff is currently working on an entirely new approach to issuing licenses, which they will begin putting into place in 2007. Instead of issuing a paper license with long lag time and no consumer data collection, the Department will implement a new point-of-sale Automated License Data System (ALDS) through retailers. Retailers will issue licenses and record sales on a real-time basis. All types of licenses/stamps/tags will be available for sales by all agents with terminal access. Consumer information will be entered and will be available to the Department for the first time. Consumers will also be able to purchase licenses over the Internet or telephone. These changes are expected to reduce costs, workload, collection/deposit/posting time, and increase accessibility, availability and timely allocation of funds to the proper account. Enforcement and marketing information will also be enhanced.

Although the ALDS represents a major improvement in how the Department does business, it will complicate revenue projections for the next few years. Revenue projections rely on historical patterns which will all be changed when the new system becomes operational. However, the additional detail that will be available for forecasting once the system is in place for a few years should increase the accuracy of the forecasts. Department staff will be able to track sales by type as they occur instead of with the significant lags that now occur. They will be able to determine when sales are made to new consumers or whether sales to regular purchasers are delayed/accelerated. So they will be better able to assess how collections are tracking with expectations and make adjustments as necessary.

Cash flow patterns will be significantly altered, so the projections for the next few years will need to rely heavily on license year data. Translating license year data to fiscal years will involve a great deal of professional judgment by the Department staff because historical patterns will no longer hold.

Recommendations

Quantitative variables that would adequately explain the decline in fishing and hunting could not be identified within the span of this analysis. Some factors that would seem to be important -such as the weather - didn't show statistically significant results. Also, an inverse relationship was found with other economic and demographic variables which appeared questionable. Only the real cost of resident sport fishing licenses showed consistent explanatory power. However, that relationship alone is not strong enough to use for forecasting.

Other factors that may also be important in explaining fishing and hunting trends over time include the average fishing/hunting trip length and cost, the level of resource populations, changes in public attitudes, available leisure time of the population, and recreation substitutes. However, time series data for important variables that may be driving fishing and hunting trends are not readily available. Therefore, trend analysis appears to be the best option for forecasting non-dedicated revenues.

DEPARTMENT OF FISH AND GAME FISCAL SYSTEM REVIEW

-- ASB Accounts Receivable Summary

A review of the Department's aged Accounts Receivable (AR) going back 17 years reveals an urgent need for an aggressive collection effort. CPS performed a high level review of aged AR for 19 Department funds ranging from 1989 through May 31, 2006. Of the total outstanding AR of \$17,646,103, approximately 72%, or \$12,678,626, ranges from one to 17 years old and offers a low probability of collection. The AR with the highest potential for collection totals almost \$5 million and ranges from 30 to over 120 days old.

The following table shows the AR aging in days for all 19 funds.

30	31-60	61-90	91-120	Over 120	Over 365	Total
2,068,477	1,171,646	459,851	174,978	1,092,525	12,678,626	17,646,103
11.7%	6.6%	2.6%	1.0%	6.2%	71.9%	100.0%

A 1988 study performed by the Commercial Law League of America indicates that AR collectibility falls off sharply after an account is older than 30 days. Approximately 94% of accounts are collectible within one month past due. On accounts two months past due, collectibility drops to 85%. At three months, collectibility drops to 74% and at six months drops to 58%. Accounts that are nine months past due have a 43% chance of collection. After one year, chance of recovery drops to 27%. After two years of delinquency, chance of collection drops to 14% and less thereafter.

In our opinion, active current year accounts from state and federal sources offer the best chance for collection. Collection probability from private and mixed sources is slightly lower, but should not be abandoned. Older state and federal accounts offer some chance for recovery but the collectibility of very old private accounts, except for dishonored checks, is low and not worth the resource investment. Based on these criteria, it appears the following ten accounts (in descending order of priority) valued at more than \$8 million offer the greatest potential for collection. In-depth analysis may indicate a change in priority order.

Fund Number and Name	Account No.	Source	Total
0001 – General Fund	1400	State	\$ 3,038,245
0998 – Office Revolving Fund	1400	State	1,156,560
0890 – Federal Trust Fund	1500	Federal	1,799,313
0001 – General Fund	1312	Private	399,593
0200 – Fish & Game Preservation	1313	Private	369,703
0001 – General Fund	1319	Mixed	171,838
0207 – Fish & Wildlife Pollution	1313	Private	162,068
0321 – Oil Spill Response Trust	1313	Private	646,060
0001 – General Fund	1311	Private	31,159
0200 – Fish & Game Preservation*	1315	Mixed	313,736
Totals			\$8,088,275

*Dishonored checks can be collected with treble damages and may be collectible using electronic fund transfers.

We understand the Department is reviewing options to establish a new Cost Recovery Unit or function that will take time to put in place. Instead of waiting, CPS recommends that in-house or outsourced collection efforts begin immediately on the highest potential AR accounts and that collection efforts on all future accounts start no later than 30 days delinquent.

Item 3600-001-0001 Department of Fish and Game

4. Cost Analysis of Mosquito Abatement to Minimize West Nile Virus.

On or before January 10, 2007, DFG shall provide a report to the Legislature (including budget and fiscal committees from both houses) on its costs associated with mosquito abatement on department-owned lands. In particular, the report shall include the following:

- *Actual expenditures in 2006-07 for mosquito abatement on department-owned lands, as of December 1, 2006, and expenditure plans for any remaining unencumbered funds.*
- *A cost comparison per acre of land between DFG and local mosquito abatement districts for mosquito abatement related work.*

DEPARTMENT RESPONSE:

FY 2006-07 -- West Nile Virus Control and Implementation of Mosquito Best Management Practices

PROGRAM DESCRIPTION

Over the past decade, wildlife areas and ecological reserves have experienced an unprecedented amount of growth in size as a result of funding from Propositions 12, 40, and 50. These propositions provided the Wildlife Conservation Board with funding to acquire additional lands to add to the wildlife area and ecological reserve system; however, funding for Department land management staffing and operations has been significantly impacted by previous years' budgetary constraints.

With the arrival of West Nile Virus in California, the level of pesticide use for mosquito control and its subsequent costs have increased land management operations costs substantially. In the Sacramento Valley alone, abatement costs have increased from \$2,249 in 1992 to \$112,043 in 2005. (Reference Figure 1) These costs are being passed from local abatement districts to the Department.

The statewide West Nile Virus and Implementation of Mosquito Best Management Practices¹ program promotes the use of habitat-based best management practices (BMPs) to reduce mosquito populations in managed wetlands. It seeks to minimize the

¹The West Nile Virus and Implementation of Mosquito Best Management Practices program sunsets on January 1, 2010.

cost and reduce the need for chemical control of mosquitoes, and increases the level of coordination and communication between the Department and local Mosquito Vector Control Districts (MVCD) in regard to mosquito surveillance, treatment, and wetland flooding.

The term best management practice (BMP) is used to describe habitat management strategies that are an effective means for reducing mosquito populations, production rates, or the timing of hatch. These BMPs focus on exploiting the ecological relationships among mosquitoes, their predators, and the wetland habitats they use for breeding.

BMPs have been identified from the scientific literature, as well as from practical applications from wetland managers and Mosquito and Vector Control Districts (MVCD). In a technical guide to wetland BMPs, published by the Central Valley Habitat Joint Venture in 2004, BMPs were classified into five categories: 1) water management practices; 2) vegetation control; 3) wetland infrastructure maintenance; 4) wetland enhancement features; and 5) biological controls.

BMPs are an essential component of integrated pest management (IPM) to control mosquitoes. IPM employs a variety of mosquito control methods that include habitat management (i.e. BMPs), biological control agents, and pesticide application. Ideally, BMPs can be used to lower the production of mosquitoes and reduce the need for chemical treatment without significantly disrupting the ecological character, habitat function, or wildlife use of managed wetlands.

The Department works closely with the MVCDs to do its part to reduce mosquitoes through habitat-based BMPs. However, local MVCDs may need to use pesticides to control outbreaks of mosquitoes when necessary to protect public health. The Department is not trained or licensed to apply pesticides for mosquito control.

Fifty-five special districts and a variety of other municipal and county agencies are responsible for organized mosquito control in the state. These districts are trained and licensed to apply pesticides for mosquito control. The districts vary in size, human population, and resources available for mosquito control. As such, each district has different policies for charging public and private lands for abatement as referenced in the following Table 2:

FEE STRUCTURE			
Abatement District	DFG Lands	Private Wetlands	Agricultural Lands
<i>Sac-Yolo MVCD</i>	No charge for services	No charge for services	No charge for services
<i>Butte Co. MVCD</i>	Charge for services	Charge for services	No charge for services
<i>Solano Co. MAD</i>	Charge for services	50% cost-share for services	Unknown
<i>Merced Co. MAD</i>	Charge for services	No charge for services	Unknown

In addition to inconsistencies in how fees are charged on public vs. private lands, cost per acre for abatement varies amongst MVCDs. Per acre fees for abatement can vary widely depending on pesticide type (e.g. larvicide vs. adulticide), pesticide product (e.g. Bti vs. Vectox), application method (e.g. aerial vs. ground application), and number of treatments required. In addition, not all MVCDs bill the Department for their services in a consistent manner. Some MVCDs only bill the Department for materials, while others bill for inspections, labor, and materials.

BUDGETED RESOURCES

Local abatement districts have the ability to charge the Department for mosquito control per the California Health and Safety Code. Under the legal abatement process, these districts can require the Department to pay for mosquito control and assess civil penalties of \$500/day and any unpaid costs may be secured by a lien on property. Annual mosquito control costs were estimated at a half million dollars for Department lands in FY 2005-06. The costs for abatement in FY 2006-07 are expected to be similar. The Department has been utilizing Proposition 99 (Public Resource Account) funds to pay for mosquito control.

The Department has entered into Cooperative Agreements at several other wildlife areas including; Upper Butte Basin, Gray Lodge, Mendota, Los Banos, and North Grasslands. However, many Department lands do not have Cooperative Agreements for abatement. Without Cooperative Agreements, it is difficult to budget for mosquito control because the Department is never certain how much abatement will occur on its lands and what expenses it will be charged for (some MVCDs only bill for materials, others charge for inspections, labor, and materials). Current costs for mosquito abatement on DFG lands in FY 2005-06 are listed in reflected in the following Table 1:

Table 1. Statewide Mosquito Abatement Costs on DFG Lands for FY 2005-06

REGION	AREA	COST
R1	Anderson/Cottonwood Cr.	\$ 6,000
R2	Upper Butte Basin	\$ 63,936
	Gray Lodge Wildlife Area	\$ 40,654
	Oroville Wildlife Area	\$ 4,963
	Butte Creek Ecological Reserve	\$ 2,490
	Yolo Wildlife Area	\$ 91,400*
R3	Napa-Sonoma Marsh	\$ 88,453
	Bair Island Ecological Reserve	\$ 94,453
	Grizzly Island Wildlife Area	\$ 32,000
R4	Los Banos and N. Grassland Wildlife Areas	\$ 9,000
	Mendota Wildlife Area	\$ 38,000
	San Joaquin Ecological Reserve	\$ 1,400
R5	No costs identified	
R6	Buena Vista Lagoon Ecological Reserve	\$ 25,000*
TOTAL		\$497,749

*Cost incurred by local MVCD, but not billed to the Department.

This year, the Legislature provided the Department \$1.5 million to implement habitat-based BMPs. Some of this funding was used to pay for abatement fees however, the majority of the funding is currently being used to improve water management, reduce problematic vegetation, and improve dilapidated wetland infrastructure to reduce mosquito production. These projects are in the initial phase of implementation and the Department is working with UC Davis and local MVCDs to monitor their results. Initial monitoring results have shown that vegetation control can reduce mosquito production at Yolo Bypass Wildlife Area (Lawler 2006, in publication). More comprehensive monitoring results will be available for future reports.

KEY MEASUREABLE OBJECTIVES

The Department has already met a number of key objectives for the West Nile Virus Control and Implementation of Mosquito Best Management Practices program, including:

- 1) Identifying BMPs and develop project proposals that reduce mosquito populations while continuing to maintain and enhance wetland habitat values on Department lands. Coordinate BMPs with local mosquito and vector control districts. **(Completed)**
- 2) Soliciting BMP proposals from regional lands staff. **(Completed)**
- 3) Prioritizing funding requests from wildlife areas, in partnership with the Integrated Pest Management Committee of the Mosquito and Vector Control Association of California (MVCAC) based on current abatement costs, mosquito production and potential control effectiveness, feasibility, and level of coordination with local MVCDs. **(Completed)**

Over the next two years, the Department will also develop contracts and encumber funding as necessary to implement projects (all contracts to be completed winter 2006), and implement BMP projects consistent with the following timeline:

Timeline of Activities²

2006	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
One-time funding made available												
Identify BMPs & develop proposals												
Proposals due to Department Lands Program												
Rank proposals & award funding												
Develop contracts												
2007	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Develop contracts (cont.)												
Implement BMP projects												

² Projects are scheduled to begin late winter or early spring 2007, when temperatures warm and mosquito production increases

The Mosquito BMPs and West Nile Virus Control projects on Department wildlife areas and ecological reserves that will be performed in FY 2006-07 are as follows (reference also Non-Game Funding section):

**MOSQUITO BEST MANAGEMENT PRACTICES (BMP) & WNV CONTROL PROGRAM
2006 PROJECT LIST:**

TOTAL 2006 FUNDING	\$1,500,000
DEPARTMENT OVERHEAD @ 13.58%	\$ 179,345
CONTINGENCY AND PROJECTS TO BE DETERMINED	\$ 96,455
PROJECT FUNDING	\$1,224,200

REGION 1 PROJECTS:

1) Anderson River Park (abatement)	\$ 4,000
2) Cottonwood Creek Wildlife Area (abatement & brush removal)	\$ 2,000
Subtotal:	\$ 6,000

REGION 2 PROJECTS:

1) Gray Lodge Wildlife Area

- Field 93 Wetland Enhancement: Survey field, remove dilapidated irrigation levees, construct new levees, construct new water delivery ditch and drainage swales, install new water control structures, laser-level minor areas to improve drainage and irrigation capabilities, restore permanent wetland

Project Total (contract):	\$ 387,000
----------------------------------	-------------------

2) Woodbridge Ecological Reserve

- Water control structure replacement (contract) **\$ 40,000**

3) Yolo Wildlife Area

- Year 1: Stubble discing (contract) **\$ 38,400**
- Year 2: Stubble discing (contract) **\$ 12,000**
- Year 1: Herbicide spraying (contract) **\$ 8,500**
- Year 2: Herbicide spraying (contract) **\$ 4,000**
- Restoration of vernal pool habitat/removal of irrigation checks (contract) **\$ 20,000**

Subtotal:	\$ 82,900
------------------	------------------

4) Upper Butte Basin Wildlife Area

- Fields 207 & 210: Levee repair, wetland de-leveling (contract) **\$ 40,000**
- Field 308B: Discing, swale construction, water control installation (contract) **\$ 32,000**

Subtotal	\$ 72,000
-----------------	------------------

REGION 3 PROJECTS:**1) Grizzly Island Wildlife Area:***Year 1*

- Core levees (contract) \$ 23,500
- Replace (9) water controls and pipe (contract) \$ 84,000

Subtotal: \$ 107,500**2) Bair Island (abatement) \$ 86,000****REGION 4 PROJECTS:****1) Los Banos Wildlife Area Complex**

- Rome 13' stubble disc (purchase) \$ 42,100
- Tractor rental (4 mos.) \$ 12,800
- Herbicide spraying in canals (contract) \$ 23,800
- Canal excavation (contract) \$ 29,600

Subtotal: \$ 108,300**2) North Grasslands Wildlife Area**

- John Deere rotary mower (purchase) \$ 18,000
- Tractor rental (3 mos.) \$ 9,600
- Canal excavation (contract) \$ 12,800
- Wetland swale construction (contract) \$ 50,000
- Herbicide spraying in canals (contract) \$ 8,000

Subtotal: \$ 98,400**3) Mendota Wildlife Area**

- Domes 15' offset disc (purchase) \$ 35,000
- Screw gate and pipe replacement (DFG installation) \$ 49,700
- Wetland swale construction (contract) \$ 60,000
- Canal excavation (contract) \$ 24,000
- John Deere gator & Fire caymen sprayer (purchase) \$ 17,500

Subtotal: \$ 186,200**REGION 5 PROJECTS:****None submitted at this time.**

REGION 6 PROJECTS:

1) Imperial Wildlife Area

- Gearmore rotary mower (purchase) \$ 16,400

2) San Jacinto Wildlife Area

- Flail mower (purchase) \$ 16,500
- Rotary mower (purchase) \$ 7,000
- Tractor rental \$ 10,000

Subtotal: \$ 33,500

GRAND TOTAL:	\$1,224,200
---------------------	--------------------

Item 3600-001-0001 Department of Fish and Game

5. Interim Update on Five-Year Infrastructure Plan.

On or before January 10, 2007, the department shall report to the chairs of the appropriate policy committees and the fiscal committees in both houses on an interim update on its five-year infrastructure plan. The interim update shall be provided after the department has conducted a comprehensive review of its infrastructure and deferred maintenance needs (facilities and lands).

DEPARTMENT RESPONSE:

FY 2006-07 -- Five-Year Infrastructure Plan – Status Report

PROGRAM DESCRIPTION

The Department of Fish and Game (Department) currently owns or administers 711 properties statewide, for a total of more than one million acres (588,440 owned and 463,427 administered). The 711 properties include 108 wildlife areas, 124 ecological reserves, 11 marine reserves, 230 undesignated lands, 180 public access areas, 21 fish hatcheries, and 37 miscellaneous lands.

The Department has a responsibility to maintain its lands and facilities in a sustainable condition for the purposes for which they were acquired, and to allow for their safe use and enjoyment by Department personnel and the public. Because of limited resources, deficiencies in facilities maintenance and capital improvements are becoming increasingly apparent, compromising public health and safety, ecosystem health, public use opportunities, and relationships with neighboring landowners.

As part of its Five-Year Infrastructure Planning process, the Department identifies and tracks infrastructure needs, including capital outlay, land restoration and other improvements. Department staff is currently evaluating the potential for expansion of the five-year planning process to address needs for:

- habitat management (including management of invasive species) ,
- ongoing infrastructure maintenance, and
- determining the carbon footprint of the department and the potential for use of Departmental lands to sequester carbon.

In addition, the Department is evaluating alternatives for capturing and assessing costs of these needs. With existing resources, the completion of a comprehensive inventory of infrastructure, and ongoing management and maintenance needs could take five years or more.

The Department Engineering Program is a small program responsible for the planning, construction, design, and surveying of Capital Outlay and Deferred Maintenance projects on Department lands, hatcheries, administration facilities, and laboratories. The Program consists of two (2) Civil Engineers, two (2) Civil Technicians, and one (1) Office Technician who manage budgets and projects in millions of dollars annually. In addition to Public Works Projects, Engineering staff provide engineering services; technical analysis of levees, wells, roads, and other miscellaneous structures and facilities; erosion analysis; and structural building inspection.

The statewide Department Lands Program is charged with the management of over one million acres of land on 690 properties located throughout California. The Program consists of 95 regional and eight headquarters staff responsible for all aspects of the program, including land acquisition (in coordination with Wildlife Conservation Board), species and habitat management, property and infrastructure maintenance, and providing opportunities to the public for activities such as hunting, fishing, wildlife viewing, education and research.

The Department's Hatcheries Program is charged with the management of 21 hatcheries, including eight Salmon and Steelhead facilities and 13 trout hatcheries. The program consists of 159 field and five headquarters staff responsible for all aspects of the program, including meeting mitigation and enhancement goals, egg and fish stocking allotments, property and infrastructure maintenance, assisting in the recovery of native fish species, stocking fish for recreational angling, supporting local economies, and providing public outreach opportunities through the involvement in the California Aquarium Education Project (CAEP), interpretative displays and guided hatchery tours.

Capital Outlay and Engineering Services projects on Department lands and facilities are identified and prioritized by Department regional and field staff and tracked using an Engineering Five Year Planning Schedule (E-FYPS) database. E-FYPS is a comprehensive database developed by the Engineering Program and used by the Engineering, Lands and Hatcheries Programs to track and schedule Public Works Projects along with Engineering Technical Requests. Currently there are projects approved in the Governor's Budget for completion in FY 2007-08 totaling \$2.9 million. The schedule of projects identified for completion in the next five years is estimated at over \$12 million; however, fund sources still need to be identified¹.

In September 2006, the Department requested that regional and field offices identify all infrastructure needs to update the E-FYPS. This information was entered into E-FYPS in November 2006 for fiscal analysis and prioritization of projects statewide through FY 2011-12. Refer to the attached Department of Finance approved 2007 California Five-Year Infrastructure Plan for the Department.

¹ Department of Finance Five-Year Planning Schedule is attached.

The Department is in the process of evaluating the planned expansion of E-FYPS for tracking ongoing development and management needs on Department lands and facilities. Part of this evaluation involves a review of systems used by the California Department of Parks and Recreation (DPR) to track capital outlay, management and maintenance needs. These systems may have applicability to tracking ongoing management and maintenance needs in particular, in addition to those currently tracked by E-FYPS. Because E-FYPS was modeled after the systems developed by DPR, it is important for the Department to determine the most effective option for capturing ongoing management and infrastructure information, whether by modifying E-FYPS, or using systems similar to those used by DPR. DPR is assisting the Department with this evaluation by providing information on its systems and procedures, and has indicated its support of the Department in working toward the best solution. The Department's alternative's evaluation is scheduled for completion by the end of spring 2007.

The Governor's Executive Order S-01-07, requires State departments to determine their carbon "footprint" for purposes of identifying management alternatives to better manage carbon emissions. In addition, pursuant to AB 32, Chapter 488, Statutes of 2006, the Department is developing information concerning the potential for use of state-owned lands as opportunities for sequestration of carbon. DFG is working with the Resources Agency and others to develop an assessment program to determine what management strategies for the use of Departmental lands would optimize carbon sequestration at the same time as public trust goals for fish and wildlife are addressed.

BUDGETED RESOURCES

Currently the Department has four Engineers, an allocation of \$500,000 annually in deferred maintenance funding and \$2.9 million for 2007-08 capital outlay projects. In order to fully inventory the Department's needs for infrastructure improvements (Capital Outlay), technical services and ongoing maintenance, a comprehensive consulting contract is being considered using some of the non-game one-time General Fund monies (see Report 7, Statewide / HQ Projects in the Non-game Fish and Wildlife Trust spending plan), for additional expertise in the civil, mechanical, electrical and transportation disciplines.

2007 California Five-Year Infrastructure Plan

SECTION FOUR | Infrastructure Needs & Proposed Funding by Agency & Department

Department of Fish and Game

The Department of Fish and Game (DFG) is responsible for managing California's fish, wildlife and plant resources, and the habitat on which they depend, for their ecological value and public enjoyment. Under general direction from the California Fish and Game Commission, the DFG administers numerous programs and enforces regulations and limits set forth in the Fish and Game Code. The major program areas are:

Biodiversity Conservation – This program encourages the preservation, conservation, and maintenance of wildlife resources. One component of this program is the review of California Environmental Quality Act (CEQA) documents. The DFG consults with lead and responsible agencies and provides the requisite biological expertise to review and comment upon environmental documents and impacts arising from project activities.

Hunting, Fishing and Public Use – This program helps provide for diverse and sustainable hunting, fishing, trapping, and other public uses, such as wildlife observation. Activities include collection and assessment of information on the distribution and abundance of game fish and other wildlife to determine the need for regulations (bag limits, gear restrictions, etc.) and to monitor the effects of those regulations.

Management of Department Lands and Facilities – This program manages department-owned or leased lands and facilities, including hatcheries, wildlife areas, ecological reserves, and public access areas. This program is responsible for administering the DFG's capital outlay program, as described in more detail below.

This program serves the public through hunter education and other conservation education programs, and promotes compliance with the laws and regulations that protect fish and wildlife resources, habitats, and public safety. The DFG's game wardens are the most visible example of this program.

Spill Prevention and Response – The objective of this program is to prevent damage, minimize impacts and restore and rehabilitate California's fish and wildlife populations and their habitats from the harmful effects of oil and other deleterious material spills in marine waters and inland habitats.

Existing Facilities: The DFG manages 711 properties statewide, comprising more than million acres (588,440 acres owned and 463,427 acres owned by other entities, but administered by DFG). Since several state agencies purchase land for the purpose of

habitat or wildlife protection, and management responsibilities of these properties are often transferred to the DFG, the number of properties is continually increasing. The 711 properties managed by the DFG include the following: 08 wildlife areas, 24 ecological reserves (which include conservation easements), marine reserves, 80 public access areas, 2 fish hatcheries, 230 lands that have not yet been designated, and 37 other types of properties. The DFG is working on a number of studies to inventory and evaluate existing infrastructure.

Drivers of Need: The three main drivers of capital outlay needs for the DFG are the improvement or replacement of aging buildings, the improvement of newly acquired lands, and more recently, the enactment of Assembly Bill 7 (AB 7) of 2005—Chapter 689, Statutes of 2005—which includes mandates for increased hatchery production levels.

Of the more than million acres of lands managed by DFG, over 829,000 acres are dedicated wildlife areas and ecological reserves throughout the state. By law, the DFG is required to protect, manage, and maintain the wildlife resources and habitats on land it owns or administers. New properties are likely to be added to the Department's stewardship in the years to come. However, because these lands are typically acquired by other state agencies, such as the Wildlife Conservation Board, land acquisitions that will likely result in future capital outlay needs are discussed in other sections of this report. This section deals with the needs of lands currently administered by the DFG, with the caveat that future needs will likely change as new lands are acquired by the state and administered by the DFG.

Many DFG-managed properties require capital outlay expenditures to upgrade old structures, improve existing facilities, or provide new infrastructure on properties that are receiving increased wildlife-related public use. Some important examples include additional comfort stations, public interpretive facilities, parking lot and road upgrades, new office space, water structure improvements to maintain or reestablish wetlands, and levee improvements.

The DFG currently operates 2 hatcheries statewide, including trout hatcheries, 8 salmon and steelhead hatcheries, and 2 fish planting bases, which range from 30 to 00 years old. While the 8 salmon and steelhead hatcheries are currently operated to mitigate the loss of natural spawning habitat, for which production levels are regulated by the National Marine Fisheries Service, the DFG has been responsible for setting production levels for the state trout hatcheries. Until recently, the production goals for the trout hatcheries have remained fairly constant.

The passage of AB 7 mandates that nearly one-third of the fees collected from the issuance of all sport fishing licenses be deposited in the Hatchery and Inland Fisheries Fund to be used for management, maintenance, and capital improvement of California's fish hatcheries, the Heritage and Wild Trout Program, other sport fishing activities, and enforcement of these activities. Furthermore, it establishes requirements for yearly increases to trout production through July , 2009.

Five-Year Needs: The DFG has requested approximately \$2.6million in capital outlay projects over the next five years for project planning, hatchery improvements, and various minor capital outlay projects. However, because the DFG has not completed a full analysis of its infrastructure needs, this plan may not accurately reflect the DFG's out-year needs. More refined needs will be included in the 2008 infrastructure plan.

The DFG has recently compiled a list of infrastructure and deferred maintenance needs, which was collected from the Department's various programs and was entered into its Engineering Five Year Planning Schedule (E FYPS) database. This database was developed by the Engineering Program and is used by the Engineering, Lands, and Hatcheries Programs to track and schedule projects identified by program staff in the field. Once the E-FYPS database can be properly analyzed, the DFG will be able to refine the needs included in this plan and develop the necessary level of project specific detail for inclusion in subsequent plans.

Funding Needs Reported by the Department of Fish and Game						
(Dollars in Thousands)						
Category Description	07/08	08/09	09/10	10/11	11/12	Total
Critical Infrastructure Deficiencies	\$6,615	\$2,573	\$1,897	\$160	\$160	\$11,405
Workload Space Deficiencies	1,200	0	0	0	0	1,200
Total	\$7,815	\$2,573	\$1,897	\$160	\$160	\$12,605

Proposal: The 2007 Plan proposes \$2.9million in 2007 08 for various minor capital outlay projects and project planning. It is recognized that the DFG has significant additional infrastructure needs; however, more detail and analysis is necessary before those actual needs can be adequately quantified. As the DFG develops the necessary level of project-specific detail, these needs should be captured in future plans.

Consistency with Chapter 1016, Statutes of 2002: This proposal is consistent with the planning provisions of Chapter 06, Statutes of 2002, as this plan includes minor funding for the renovation and development of facilities in areas served by existing infrastructure. Furthermore, as the DFG develops more detailed infrastructure needs, the DFG will consider these planning guidelines in the development of future infrastructure proposals.

Proposed Funding for the Department of Fish and Game						
(Dollars in Thousands)						
Category Description	07/08	08/09	09/10	10/11	11/12	Total
Critical Infrastructure Deficiencies	\$2,922	\$0	\$0	\$0	\$0	\$2,922
Total	\$2,922	\$0	\$0	\$0	\$0	\$2,922
Funding Source						
Special Fund	\$2,232	\$0	\$0	\$0	\$0	\$2,232
Other	690	0	0	0	0	690
Total	\$2,922	\$0	\$0	\$0	\$0	\$2,922

Item 3600-001-0001 DEPARTMENT OF FISH AND GAME

6. *Endowment Funds.*

On or before January 10, 2008, the department shall report to the chairs of the appropriate policy committees and the fiscal committees in both houses on its plans to expend the endowment funds it has received as mitigation.



DEPARTMENT RESPONSE:

FY 2007-08 -- Endowment Funds

A report will be rendered on or before January 10, 2008.

Item 3600-001-0001 Department

7. One-Time General Fund Augmentations.

*On or before February 1, 2007, the department shall provide a report to the Legislature on its expenditures of one-time General Fund augmentations in the 2006-07 Budget Act for activities in the **marine region**, salmon and steelhead restoration projects, nongame fish and wildlife trust resources, and funding for the Coastal Wetlands Account.*

DEPARTMENT RESPONSE:

<p>FY 2006-07 -- Joint Funding of the Ocean Protection Council and the Department</p>
--

PROGRAM DESCRIPTION

California's 2006 Budget Act appropriated \$8.0 million one-time General Fund (GF) to the California Ocean Protection Council (Council) for the implementation of the Marine Life Protection Act (MLPA, Stats. 1999, ch. 1015) and Marine Life Management Act (MLMA, Stats. 1998, ch. 1052). The Budget Act calls for these funds to be expended "pursuant to a work plan developed jointly by the Council and the Department of Fish and Game (Department)." An additional \$2.0 million in one-time GF was appropriated to the Department to fulfill these same goals. To maximize the effectiveness of these associated appropriations, the Council and the Department have created a joint work plan that sets forth priorities for the complete \$10.0 million. In accordance with the budget direction, the joint work plan is being submitted to the chairpersons of the fiscal committees in each house of the Legislature and to the Chairperson of the Joint Legislative Budget Committee.

The work plan budget is divided into four categories with estimated expenditures: A) data collection at \$7,775,000; B) data analysis at \$900,000; C) program support at \$250,000; and D) general infrastructure at \$1,075,000. Within the \$10.0 million total expenditures, \$600,000 is for activities related solely to MLPA and \$750,000 is for activities related solely to MLMA. The remaining \$8.65 million is for activities that will support implementation of both the MLPA and MLMA. (For more information on the MLPA and MLMA, reference Section 2. Select Key Activities, Marine in this report.)

In addition, the Council and the Department will consider dedicating funding from other sources to support the MLPA and MLMA. Primary among these proposed commitments is \$2.0 million from the Council for a marine resource monitoring institution, which will coordinate data collection and dissemination, and \$3.0 million to support sustainable fisheries through innovative approaches. The \$2.0 million presented here for the Department is only a small portion of the agency budget dedicated to these two laws. Collectively, the Department and the Council will likely expend well over \$15.0 million during the next few years to ensure proper execution of the MLPA and MLMA.

As noted previously, good fisheries management has always relied on data about the health of targeted stocks. However, additional information is needed regarding marine ecology, essential habitats, and natural processes that affect fish populations, as well as the interactions between different species complexes and the fisheries that pursue them. Without substantial *fisheries dependent* data, uncertainties in the amount of fish caught annually can lead to premature fishery closure, or worse, unexpected and potentially significant declines in fish stocks. Without *fisheries independent* data on both the status of populations and the habitats they depend upon, uncertainties in stock status and environmental impacts may lead to errors in management decisions. In addition, it is critical that management decisions are monitored for effectiveness, in particular on the ecological impacts of creating a network of marine protected areas (MPAs) through the MLPA.

It is a priority of both the Council and the Department that essential data are collected, analyzed, and applied to the decision making process. Therefore, much of this joint budget is focused on funding projects that focus on these aspects of implementing the MLPA and MLMA.

BUDGET RESOURCES

Attached is the joint Council & Department budget that presents the data collection, data analysis, program support, and general infrastructure that will be supported by the \$10.0 million in FY 2006-07. Details about the projects and how they address the goals of the MLPA and MLMA are included in the following sections and are numbered to correspond to the work plan budget. The Council and the Department determined these projects to be the highest priority in the short term to accomplish our shared goals, the numbering and letter designation within the budget do not indicate further ranking. The Council and the Department will strive to locate additional funding to increase the quality and quantity of essential data, either from their own budgets or from non-agency sources (e.g., foundations, commercial fishers, recreational anglers, non-profit institutions, and the federal government). Further, the amounts reflected are for two years of funding for each of these projects.

As new information becomes available, it may be necessary for the Council and the Department to adjust the amount of funds allocated to specific projects listed. The attached budget displays the targeted amounts for each specific line item. The Council will not transfer more than 20 percent of funds from one line item to another without submitting a revised plan.

Department Marine Region staff performs a variety of duties and are not specifically assigned to MLPA monitoring or other broad management frameworks like the MLMA. Rather, Marine Region staff is assigned to a variety of projects within a few broad programs. Overall, the Department has assigned 79 positions to ongoing monitoring of marine resources. Of these 79 positions, 32 are from the augmentation provided in the FY 2006-07 budget and many of them will be involved in the future monitoring required for the central coast. However, it is envisioned that contractors will need to be hired in the future to assist with this effort. In 2007, the Council and the Department will work closely with the federal government, academic and research institutions, commercial fishers, recreational anglers, and the non-governmental organizations (NGO) community to design and implement an ongoing monitoring plan for the central coast.

The Council believes that it is important to establish a marine resource monitoring institution whose purpose will be to coordinate data collection between various state agencies, universities, volunteer groups, and others; analyze these data; and disseminate the information to California policymakers and others. While initially focused on monitoring within the central coast component of the statewide MPA network, it will grow to include all state MPAs as they are designated, and could become the clearinghouse for all marine monitoring data in California. This MPA monitoring institution will work closely with policymakers to present them with accurate information about the success of the MLPA and other management. The Council has dedicated an additional \$2.0 million to establish this marine resource monitoring institution (not included in the attached budget). These funds will be used to hire a program manager and other core staff who will coordinate the data collection process and determine the best place to house this institution in the long-term.

The Department's Law Enforcement Division staff is charged with enforcing marine resource management laws and regulations over an area encompassing approximately 1,100 miles of coastline. Department staff also provides enforcement of federal laws and regulations within state waters and in federal waters. Enforcement duties include all commercial and sport fishing statutes and regulations, all Fish and Game Code and Title 14, California Code of Regulations restrictions, marine water pollution incidents, homeland security, and general public safety. General fishing regulations and other restrictions apply within MPAs as well as specific MPA restrictions. The Department shares jurisdiction for federal regulations including the Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act, the Marine Mammal Protection Act, and the Lacey Act.

The Department maintains a fleet of seven large patrol boats in the 54- to 65-foot class stationed at major ports throughout the state. These patrol boats are staffed by a cadre of 22 officers and five support personnel. The Department also has eight patrol boats in the 24- to 30-foot range, and another 15 patrol skiffs stationed at ports and harbors throughout the state. Overall, the Department has approximately 239 Wardens in the field responsible for a combination of inland and marine patrols. Some of these Wardens have a "marine emphasis" focusing primarily, but not exclusively, on ocean enforcement. The Department has a fleet of single- and twin-engine fixed wing aircraft that work in conjunction with both marine and land based Wardens to help identify and investigate violations. Though seemingly impressive, when compared to the more than 5,000 square miles of California state waters and

the federal waters beyond, as well as California's vast inland area, these numbers are quite small.

In the central California coast, for example, there are presently 30 to 40 Wardens in the field. Of these, approximately 15 have a marine emphasis and are responsible for enforcing regulations over more than 1,100 square miles of state waters within the MLPA central coast study region (Table 1).

Table 1. Central coast enforcement personnel with marine emphasis (2005)

Pigeon Point to Big Sur		Big Sur to Point Conception		Total
Land Based	Patrol Boat	Land Based	Patrol Boat	
1 Lt. / 2 Wardens	1 Lt. / 2 Wardens 1 patrol boat	2 Wardens	2 Lt. / 4 Wardens 2 patrol boats	4 Lieutenants 10 Wardens

To adequately enforce MPA regulations, the Department will prioritize areas of particular concern or at particular risk and emphasize patrol of these areas. Given the Department's other broad mandates to enforce both state and federal marine resource regulations, current assets are not adequate to redirect to MPA specific patrols. The increased focus on MPAs suggested by the MLPA and the comprehensive network the Act mandates will require not only a detailed enforcement plan, but also additional enforcement assets.

The 2006-07 Governor's Budget provided the opportunity to create nine new enforcement positions to assist with MLPA, MLMA and Bottom Trawl Bill implementation. However, it is likely that the entry level Warden positions will not be filled, nor the personnel trained and deployed, until September of 2008. Current MPA enforcement will be accomplished at a minimal level using existing personnel resources. Due to existing demands on Wardens which cannot be changed, the Department may use MLPA funding to pay overtime to existing Wardens to patrol new closed areas and provide equipment to make the jobs more effective.

MPAs will be patrolled by many techniques including large patrol boats, small patrol skiffs, aircraft, and by Wardens on the coast. Each MPA has special needs requiring specialized patrol efforts. Areas closer to ports will require less effort to get to, but because of their proximity to population centers, will have a higher use than remote areas. Remote areas may get fewer users, but require more staff time and usually larger boats or aircraft to patrol.

The adopted MLPA Master Plan recommends dividing the state into five regions to facilitate implementation. As discussed above, the Commission selected a preferred alternative for MPAs within the central coast on August 15, 2006. As of this writing, the Commission is considering which area of the state will be identified as the next study region.

The MLPA implementation planning process for each region of the state will require both the Department staff and contracted support for various technical and scientific roles. The Department has assigned 10 positions to directly assist in this regional

planning process. Almost all of the funds included in the work plan budget will help inform future Commission decisions as well as the planning process itself (\$9.25 million).

KEY MEASURABLE OBJECTIVES

A great deal of information and resources are needed to support the implementation of the MLPA on a statewide basis. The items proposed as part of this joint work plan will help the Department implement proposed new MPAs in the central California coast as well as continue MLPA implementation in the next study region. The following items are linked by letter and number designation to the attached work plan budget spreadsheet:

A1 - Baseline Monitoring

- The MLPA specifically calls for monitoring and research within MPAs.
- Baseline data are necessary to determine whether MPAs are effective and to help support ongoing adaptive management of MPAs.
- Moving forward with an ecosystem approach to management, it is important to understand the effects of MPAs on the biology and ecology of the biota within and adjacent to the MPA boundaries.
- Reference reserves may over time help to reveal the effects of fishing on the ecosystem by providing a comparison of unfished to fished habitats.

A2 - Habitat Mapping

- Specific information on benthic zone (ocean bottom) habitats is necessary both to plan and design MPA networks and to monitor those networks once implemented. Benthic habitat mapping will provide the detailed data necessary to determine substrate types, depths, and complexity of habitats.
- An important early step in moving forward with ecosystem management is to identify, classify, and catalog existing habitat. In the absence of this information, it is difficult or impossible to determine how the ecosystem functions as a whole and what the overall impacts of fishing are to the ecosystem.

A3-6, D1, D3, and D6 - Fishery-Independent Surveys

- Systematic surveys such as the SCUBA, Remote Operated Vehicle (ROV), and fish trapping proposals provide adult and juvenile information on relative abundance, species interactions and associations, habitat preference, distribution, and size composition of numerous stocks. When tracked over time, this kind of information may provide managers with an indication of whether stocks are increasing or decreasing, and whether the management measures that have been employed are achieving their intended conservation objectives. These surveys help provide information on the status of populations and species composition in specific areas needed for MLPA implementation and planning.

- Another type of proposed fishery-independent survey is for ichthyoplankton, which measures the spawning output from many different species at the same time. This provides information on growth and survival at the youngest life stages, and also provides an indication of the abundance of the female spawning biomass that produced the planktonic offspring. As with the case of adult and juvenile survey data, the ichthyoplankton survey data may be used to help determine MPA effectiveness.

A7, B2, and B3 - Fishery-Dependent Data Collection

- Better access to data from logbooks and data system evaluation will help to provide more accurate, precise, and timely data on fishing activities, which is crucial to effective fishery management. This information is critical to the MLPA implementation process to help determine both impacts to fisheries from MPAs and to determine locations where stocks may have been impacted by fishing and benefit from MPA protection.
- This funding will help eliminate bottlenecks in capturing, editing, and disseminating a large volume of fishery data from existing sources, especially logbooks.

A8 - MLPA Socioeconomic Data Collection

- The funds will support preliminary socioeconomic data collection for the MLPA process in the next study region so that these data may be taken into account while planning the next regional network.

D2 - Research Vessel Operations

- Fishery-independent surveys can only be accomplished with vessel operations that are dedicated to scientific research. Therefore, it is crucial that vessels be available to provide suitable platforms to accomplish these activities. The funding for research vessel operations will help insure that the needed maintenance is performed and equipment is procured to allow the survey work to take place. These surveys are a cornerstone of MPA monitoring.

C1, C2, D4, D5, and D7 - Programmatic Support and Infrastructure

- Proposed support and infrastructure expenditures will provide the necessary expertise and physical equipment to address the MLPA implementation and planning needs along with the objective of monitoring and evaluating MPAs. In addition, the funding for computers and other equipment will enhance the Department's capability to acquire necessary data, maintain databases, and provide input into both stakeholder and Commission processes.

The fishery management system established by the MLMA is being implemented stepwise for four sets of fisheries. Following is a summary of actions taken by the Department to implement the MLMA for each of these groups.

1. The nearshore finfish fishery and the white seabass fishery were specified in the MLMA as the first to have FMPs developed and adopted for management.
 - Department prepared a Nearshore FMP which was adopted by the Commission in August, 2002. Since that time, the Commission and Pacific Fishery Management Council (PFMC) have used it to provide a framework for managing California's nearshore fisheries.
 - The pre-existing white seabass FMP was amended to comply with the MLMA, and the Commission adopted the revised FMP in 2001. The WSFMP uses a framework plan approach for managing the white seabass fishery. This enables the adjustment of management measures, within the scope and criteria established by the FMP and implementing regulations, without the need for amending the FMP.
2. Fisheries for which the Commission held some management authority before January 1, 1999.
 - The MLMA Master Plan, adopted in 2001, sets priorities for the next fisheries for which FMPs will be drafted.
 - A Market Squid FMP was adopted in 2004.
 - An Abalone Recovery and Management Plan (ARMP) was adopted in 2005.
3. Emerging and growing fisheries that are not currently subject to specific regulation.
 - The Marine Region recently reorganized to establish a new project that deals specifically with emerging fisheries managed by the state, such as Tanner crab.
4. Commercial fisheries for which there is no statutory delegation of authority to the Commission and Department. (In the case of these fisheries, the Department may prepare, and the Commission may adopt, an FMP, but that plan cannot be implemented without a further delegation of authority through the legislative process.)
 - These fisheries have reduced a priority for the Department action because of the lack of delegated authorities.

A great deal of information and resources are needed to support the completion of EFI for science-based management, as well as to address the data gaps highlighted in the already-completed FMPs for nearshore, white seabass, squid, and abalone. The data collection proposed as part of this joint work plan will help the Department make significant progress to directly address EFI needs. This will allow the Department to not have to wait for, or rely upon, other agency or academic scientists to provide the

underlying research and analyses. Proposed work plan activities will enhance EFI in several key areas, which in turn will help to insure that California's fisheries are managed for long-term sustainability. The following items are linked by letter and number designation to the attached budget spreadsheet:

A3-6, D1, D3, and D6 - Fishery-Independent Surveys

- Systematic surveys such as the SCUBA, ROV, and fish trapping proposals provide adult and juvenile information on relative abundance, species interactions and associations, habitat preference, distribution, and size composition of numerous stocks. When tracked over time, this kind of information may provide managers with an indication of whether stocks are increasing or decreasing, and whether the management measures that have been employed are achieving their intended conservation objectives. These surveys are one source of information on the effects of fishing on habitat, which is an MLMA objective. Fishery-independent time series data for adults and juveniles are also important for standard stock assessment models for individual species.
- Another type of proposed fishery-independent survey is for ichthyoplankton, which measures the spawning output from many different species at the same time. This provides information on growth and survival at the youngest life stages, and also provides an indication of the abundance of the female spawning biomass that produced the planktonic offspring. As with the case of adult and juvenile survey data, the ichthyoplankton survey data are often used as inputs for integrated stock assessment models.

A1 - Baseline Monitoring

- In order to move forward with an ecosystem approach to management, it is important to understand the biological and ecological effects of MPAs on the biota within and adjacent to the MPA boundaries.
- Reference reserves may, over time, help to reveal the effects of fishing on the ecosystem by providing a comparison of unfished-to-fished habitats.
- Baseline data will also provide information on individual species—both exploited and unexploited—so that future activities may be more effectively evaluated, such as the possible development of a new fishery.
- Baseline data may also help to provide the inputs for future stock assessments of currently unassessed species.
- Finally, the MLMA calls for socioeconomic considerations in decision-making, and the baseline socioeconomic data on MPAs will help address this issue.

B1 - Stock Assessments

- Integrated stock assessments for individual species provide valuable information to managers on the current abundance of a stock and the

amount of fishing that the stock can safely support. This is an established and accepted way to provide for sustainable fisheries, and the proposed work will significantly add to the number of assessed stocks in California waters. These assessments are based on computer models that simultaneously analyze all available information on a population to provide the best single answer on how the stock abundance has changed through time in response to fishing pressure. This kind of information informs many fishery management decisions at both the state and federal levels.

A2 - Habitat Mapping

- An important early step in moving forward with ecosystem management is to identify, classify, and catalog existing habitat. In the absence of this information, it is difficult or impossible to determine how the ecosystem functions as a whole and what the overall impacts of fishing are to the ecosystem.

A7, B2, and B3 - Fishery-Dependent Data Collection

- Better access to data from logbooks and data system evaluation will help to provide more accurate, precise, and timely data on fishing activities, which is crucial to effective fishery management. This information allows managers to insure that key regulations, such as overall catch limits, are being observed and enforced. Also, the MLMA calls for monitoring the level of bycatch and its effect on other fisheries, which can only be accomplished through effective fishery data collection and the availability of data from sources other than landings, such as from logbooks. Finally, important biological information on the size, age, and sex composition of the catch is provided through these proposed activities.
- The funding will help eliminate bottlenecks in capturing, editing, and disseminating a large volume of fishery data from existing sources, especially logbooks.
- Improved field data collection will provide better geographic and temporal coverage of fishing activities, ultimately providing managers with insights into poorly-sampled secondary and tertiary activities such as night-time fishing and trips that originate from private marinas. These activities currently are significant sources of uncertainty and imprecision in the overall catch estimates.

D2 - Research Vessel Operations

- Fishery-independent surveys can only be accomplished with vessel operations that are dedicated to scientific research. Therefore, it is crucial that vessels be available to provide suitable platforms to accomplish these activities. The funding for research vessel operations will help insure that the needed maintenance is performed and equipment is procured to allow the survey work to take place.

C1, C2, D4, D5, and D7 - Programmatic Support and Infrastructure

- Proposed support and infrastructure expenditures will provide the necessary staff expertise and physical equipment to address the MLMA objective of monitoring and evaluating management actions. The funding for computers and other equipment will enhance the Department's capability to acquire EFI, maintain databases, and conduct sophisticated modeling analyses such as stock assessments.

The proposed work plan activities and expenditures will directly address some of the EFI research and data needs that have been identified in the existing nearshore, white seabass, and market squid FMPs, as well as the Abalone Recovery and Management Plan.

- Nearshore FMP research and data needs addressed by the proposed work plan:
 - Nearshore habitat mapping, ROV video transects, and novel imaging technologies for spatially specific information on habitat
 - Geo-referenced databases
 - ROV, SCUBA, and experimental fishing studies to acquire spatially specific information on biomass, density, abundance, age structure, recruitment, life history, and ecological information
 - Improved port sampling protocols for more accurate sport and commercial catch information
 - Improved CPFV and commercial logbook systems for more useful information on catch composition and location
 - Socioeconomic studies to determine resource demand, costs-of-production, and the contribution of the commercial and recreational fisheries to local economies
- White seabass FMP research and data needs addressed by the proposed work plan:
 - Determine accurate estimates of bycatch
 - Move toward ecosystem-based management approach
 - Expand socioeconomic data collection and analyses
- Market squid FMP research and data needs addressed by the proposed work plan:
 - Maintain and improve the market squid logbook program for more timely data reporting
 - Maintain the port sampling program and improve the estimates of bycatch
 - Use of fishery-independent surveys to evaluate stock structure, distribution, and abundance which will provide the basis for future science-based management strategies

- Utilize a ROV to characterize market squid spawning habitat, including the depth and temperature where egg cases are deposited as well as to develop an index of egg case abundance
- Abalone Recovery and Management Plan research and data needs addressed by the proposed work plan:
 - Collect management-related EFI through diver surveys
 - Collect recovery-related data through exploratory and recovery assessment survey

Detailed Joint Council - Department Budget

	Description	MLPA applicable	MLMA applicable	Council Funds	Department Funds
A. Data Collection					
A1 - MLPA Central Coast Baseline Monitoring	Baseline biological, physical, and socioeconomic measurements for the newly created central coast MPAs.	Y	Y	\$2,275,000	
A2 - Benthic Habitat Mapping - North Central Coast	Benthic habitat mapping for the offshore area between Bolinas and Point Arena.	Y	Y	\$1,510,000	\$1,000,000
A3 - SCUBA surveys of marine species/habitats	Scuba fish density studies (CRANE) along selected portions of the coast (primarily the Channel Islands and Southern California regions) to fill research gaps in current density studies. (\$10k/site/yr*2 years*30 sites)	Y	Y	\$600,000	
A4 - ROV surveys of marine species/habitats	ROV assessment of deep-water habitats and species within the Channel Islands. (\$330k/yr*2 years)	Y	Y	\$660,000	
A5 - Fish Trapping Studies	Fish trapping study to mark and release various species for Channel Islands and central coast marine protected areas monitoring. (200K/yr* 2 years)	Y	N	\$400,000	
A6 - Ichthyoplankton Surveys of Marine Species	Ichthyoplankton assessment of nearshore habitats including evaluation of newly created central coast MPAs and established Channel Islands MPAs. (250K/yr* 2 years)	Y	Y	\$500,000	
A7 - Field data collection	Fisheries technicians to support ongoing monitoring, management, and data collection efforts within 12 marine region projects. (21 technicians at 30K/year hired through an agreement with PSFMC)	Y	Y	\$630,000	
A8 - MLPA socioeconomic data collection	Baseline socioeconomic data collection to support to the regional planning process in the next study region.	Y	N	\$200,000	

	Description	MLPA applicable	MLMA applicable	Council Funds	Department Funds
B. Data Analysis					
B1 - Stock assessments	Complete stock assessments of species with existing data available. (75k/yr*2 years)	N	Y	\$150,000	
B2 - Fishery data collection system evaluation	Evaluate all commercial and recreational fishery dependent data collection technology and system (market receipts, commercial logbooks, and CPFV logbooks) and develop a comprehensive and integrated electronic data collection, reporting, and compliance system. (\$150k/yr/2 years) Unknown equipment and technologies needed for implementation.	Y	Y	\$300,000	
B3 - Commercial Fishery logbook data management	Programmers to develop commercial fishery logbook data management systems to manage and report data contained in logbooks for more than 12 fisheries.	N	Y	\$450,000	
C. Program Support					
C1 - Department staff development	Additional staff development training and coaching in how to use public involvement, project management, how to communicate with others including the public and FGC. (\$50k/yr*2 years)	Y	Y		\$100,000
C2 - Department marine research priority setting	Assistance to Department staff to identify priorities for marine research, including development of implementation budget, staffing and equipment needs, and evaluation processes. (\$75k/yr*2 years)	N	Y		\$150,000

	Description	MLPA applicable	MLMA applicable	Council Funds	Department Funds
D. General Infrastructure					
D1 - ROV Upgrade	Upgrade Remotely Operated Vehicle (ROV) for monitoring at depths divers can not access; upgrade the existing equipment and purchase supplies for maintaining equipment	Y	Y	\$100,000	
D2 - Research Vessel Operations	Operating for existing research and enforcement vessels for overhauls, new engine, winches, and upgrades. (100k/yr*2 years)	Y	Y	\$200,000	
D3 - SCUBA Compressors	Three portable SCUBA compressors to support nearshore dive activities along with replacement parts and equipment for ongoing maintenance.	Y	Y		\$30,000
D4 - Network Printers	New network printers for remote offices to replace out of date and non-functioning equipment.	Y	Y		\$25,000
D5 - IT Hardware	Information technology hardware to support Marine Region capabilities for network access.	Y	Y		\$345,000
D6 - SCUBA Equipment	Upgrade scuba gear for Marine Region divers and scuba equipment stock for new divers.	Y	Y	\$25,000	
D7 - Computers	New computers and specialty software upgrades for all Marine Region staff whose computers do not meet the Department standards.	Y	Y		\$350,000
Total				\$8,000,000	\$2,000,000

Item 3600-001-0001 Department of Fish and Game

7. One-Time General Fund Augmentations.

*On or before February 1, 2007, the department shall provide a report to the Legislature on its expenditures of one-time General Fund augmentations in the 2006-07 Budget Act for activities in the marine region, **salmon and steelhead restoration projects**, nongame fish and wildlife trust resources, and funding for the Coastal Wetlands Account.*

8. Salmon and Steelhead Trout Restoration—Klamath River Projects.

On or before January 10, 2007, DFG shall provide a report to the Legislature (including budget and fiscal committees from both houses), on its use of state funds for restoring the Klamath River, its progress to date, and its plans for the budget and future years for this restoration effort. The department's report shall discuss how the department's efforts are being coordinated with those of other state agencies expending funds for this purpose. It is the intent of the Legislature that the state undertake a systematic approach to Klamath River restoration.

DEPARTMENT RESPONSE:

**FY 2006-07 -- Salmon and Steelhead Trout Restoration —
Klamath River Projects**

PROGRAM DESCRIPTION

The Department of Fish and Game (Department) was provided a one-time \$10 million augmentation for restoration of Salmon habitat and increased regulatory compliance in the Klamath Basin. The expectation of the Department is to: 1) support projects that will help to improve Klamath Basin salmonid stocks to minimize or avoid the severe commercial and in-river harvest restrictions such as those imposed in 2006; 2) support projects that increase salmonid recovery efforts by providing overtime funds for increased and directed enforcement patrols related to protecting salmonid stocks in the Klamath Basin.

Main stem Klamath River flows are governed by a Biological Opinion for Coho Salmon issued to the Bureau of Reclamation by National Oceanic and Atmospheric Administration (NOAA) fisheries. While restoration actions in the main stem are essential to recover and maintain Klamath Basin salmonids, main-stem restoration actions are not within the direct control of the State of California, and pivotal regulatory decisions that will provide the sideboards for habitat improvement have yet to be made. For example, the final environmental requirements placed on the operation PacifiCorps hydroelectric facilities and/or the decommissioning of four dams will play a pivotal role in restoring the Klamath River. However, the final decision by the Federal Energy Regulatory Commission (FERC) is still over a year away.

Based on the uncertainty of specific main-stem restoration needs described above, and to comply with the Legislative direction to provide immediate benefit to salmonid habitat in the Klamath Basin, the Department focused on the cold water tributaries to the Klamath River from Iron Gate Dam to the Pacific Ocean. The Department determined that the restoration funds should be directed towards projects that would provide an immediate benefit to the fisheries. Therefore, efforts were focused on projects that would provide salmonids with access to suitable unoccupied habitat by removing barriers to fish passage, projects that will prevent entrainment of salmonids into water diversion structures (fish screens) and actions that would provide additional stream flows at key times of the year. Because the goal of the Department was to focus on projects that provided immediate benefit to the fisheries, the Department did not focus on projects that provide long-term incremental benefits to fish habitat such as road restoration, vegetation management or bank stabilization.

The Department also chose to focus efforts in areas where there were existing programs in place, providing benefits to Klamath Basin Salmonid populations and/or areas that have been previously identified as in need of immediate restoration action. The National Academy of Science's Report on the Klamath Basin identified Scott and Shasta River restoration as key to restoring the Klamath Basin. Because the Department has been actively working with agricultural water diverters to develop a master Streambed Alteration Agreement Program to benefit fisheries in these two Klamath tributaries, the Department chose to place emphasis on projects in both the Scott and Shasta Rivers.

To help identify priority projects that would provide an immediate benefit to Klamath Basin Salmonids, the Department met with the Siskiyou and Shasta Resource Conservation Districts (RCD), members of the Karuk, Yurok and Hoopa Valley Tribes and representatives from the National Marine Fisheries Service (NMFS) and the US Fish and Wildlife Service (FWS) on September 22, 2006. These experts were chosen to make up the Group because they have access to lands within the tributaries and have the most "on the ground" knowledge of these areas. The Group identified a list of high priority projects that were then reviewed by Department management for final approval. The list of projects approved for further consideration can be found in Table 1 and in a Project Solicitation Notice (PSN) posted on the Department's website on September 26, 2006 (<http://www.dfg.ca.gov/nafwb/klamathrivergrants.html>). The deadline for proposals including project design, implementation schedule and cost was October 13, 2006. Department staff and experts from the NMFS and FWS conducted field reviews of the project proposals received as a result of the PSN.

Because some of the projects included in the PSN are complex and will require detailed engineered plans, total project costs are currently unavailable. Once refined project costs are available, the Department will allocate funding to projects submitted in response to the PSN, in priority order, based on immediate benefits to the fishery. Additionally, because the funds are a one-time allocation, some projects will not be funded because they cannot be completed by June 30, 2009.

In an effort to maximize effectiveness of implementation of the current one-time allocation of \$10 million, the Department coordinated with fisheries managers involved in habitat restoration in the Klamath Basin. Experts from the NMFS, FWS, Yurok, Karuk and Hoopa Valley Tribes joined the staff of the RCDs to recommend high priority projects that would have an immediate benefit to the fishery resource. The RCDs have been implementing restoration projects for over 25 years. The Tribal Governments have strong legal, cultural and subsistence ties to the Klamath fishery and have been actively involved in fishery management and restoration programs for decades. NMFS and FWS are the Federal Fisheries Agencies with regulatory and trust responsibilities in the Klamath Basin.

In addition to the experts that were assembled for the current effort, the Department routinely coordinates with several state (Oregon and California), federal, tribal and local agencies as well as non-governmental organizations (NGO) and private landowners. This coordination is constant and a part of the Department's daily efforts to restore the Klamath System. Currently the Department is actively meeting (1-2 times per month) with a broad array of stakeholders in the Klamath Basin in an effort to reach a settlement in the re-licensing of PacifiCorp's Klamath Hydro-electric facilities. The 'confidential settlement group' includes five federal agencies, four tribal governments, two water user associations, commercial fishermen, three counties, two members representing a large number of conservation organizations, three Oregon state agencies, the Department and the California Water Resources Control Board.

It should be noted that the projects included in the PSN represent only the "cream of the crop" and that many high value projects that would have an immediate benefit to the Klamath fishery were not advanced at this time due to resource limitations.

A significant restoration challenge for the Klamath System is an understanding of the role that disease plays in limiting salmon numbers. A critical need is to investigate the role of disease to determine what management and/or restoration actions can be undertaken to reduce the significant mortality that is currently being observed.

In order for the State of California's efforts to be successful in restoring the Klamath System, it is essential that efforts to collaboratively work with private landowners be continued to improve conditions for fish while maintaining healthy and viable communities. As mentioned above, the National Academy of Sciences indicated that actions will be necessary in the main stem Klamath and in the major tributaries, to restore the Klamath System including the Scott and Shasta Rivers. The landowners in these two tributaries have been voluntarily implementing restoration programs for over 25 years. Additionally, they have been working with the Department to implement a programmatic Streambed Alteration Agreement Program and an Incidental Take Permit for Coho Salmon. This effort will have immediate benefit for the fisheries resource and

the community by significantly streamlining the regulatory process. While the State and Federal government has invested significant funding for restoration projects in the two tributaries, funding for “capacity building” for the Resource Conservation Districts is essential. The programs they are implementing require full-time individuals capable of managing complex projects and regulatory permits.

BUDGETED RESOURCES

The FY 2006-07 budget augmentation of \$10.0 million will enable the Department to perform significant Klamath River restoration projects and to help support the enforcement component of the focused project. This will involve the expenditure of \$250,000 of the \$10.0 million allocation for the following.

Necessary Enforcement Expense	Cost
Equipment	
22' Jet Boat with Trailer	\$ 40,000
All Terrain Vehicle	6,000
Night Vision Goggles (2 pair)	7,000
Overtime (2,750 hours)	124,500
Travel	45,000
Overhead – 13.58%	27,500
Total Funds	\$250,000

KEY MEASUREABLE OBJECTIVES

In FY 2006-07 and FY 2007-08, the Department will focus on the following 39 priority restoration projects:

Araujo Dam Fish Passage and Water Quality Improvements Project

This project will replace an existing diversion system with a suitable, fish-friendly water delivery system. In order to meet the needs of the Araujo Dam water users and to assist in salmonid restoration and improve water quality in the Shasta River the following activities shall be proposed: 1) design and install a system that will still provide continued agricultural water to the Araujo Dam water users while providing fish passage, 2) design and install a new fish screen at the diversion location and 3) remove existing flashboard diversion dam.

Shasta River Water Association Fish Passage and Water Quality Improvements Project

This project will replace an existing diversion system with a suitable, fish-friendly water delivery system. In order to meet the needs of the Shasta Valley water users and to assist in salmonid restoration and improve water quality in the Shasta River the following activities shall be proposed: 1) design and install a system that will still provide continued agricultural water to the Shasta Valley water users while providing fish passage, 2) design and install a new fish screen at the diversion location and 3) remove existing flashboard diversion dam.

Grenada Irrigation District Fish Passage Improvement Project

This project will replace an existing diversion system with a suitable, fish-friendly water delivery system. In order to meet the needs of the Grenada water users and to assist in salmonid restoration and improve water quality in the Shasta River the following activities shall be proposed: 1) design and install a system that will still provide continued agricultural water to the Grenada water users while providing fish passage, 2) design and install a new fish screen at the diversion location and 3) remove existing flashboard diversion dam.

Fall Flows Enhancement Program

Adult Chinook salmon access is limited in the Scott River watershed by stock water diversions that continue after irrigation season ends. This project would be an extension of the Scott River Water Trust. Chinook can enter Scott Valley when the USGS gage is at 25-30 cubic feet per second (cfs). These flows shall be achieved through use of alternative sources for watering stock or reimbursing operations for not diverting stock water. This project will make agreements that will secure up to 7 cfs for instream benefit in the Scott River watershed after irrigation season for up to 75 days in the fall.

Enhancement of Critical Rearing Areas through Improved Flows

This project would seek to negotiate opportunities to lease/purchase water for instream benefit in critical rearing areas in the Scott River Watershed. This would be an extension of Phase II of the Scott River Water Trust. By April 2007, three or more negotiations will be explored to the point of contract. This project shall secure 5 cfs from the later half of the irrigation season to the end of irrigation season in critical over-summering areas.

Mid Klamath Tributary Fish Passage Improvement Project

This project would coordinate crews of local volunteers under the guidance of a senior fisheries biologist to annually provide fish passage on Aikens, Slate, Red Cap, Camp, Stanshaw, Sandy Bar, Rock, Ti, Dillon, Elliot, Swillup, Independence, Titus, Little Horse, China, Thompson, Fort Goff, Portuguese, Grider, Walker, O'Neil, and other creeks with alluvial fish passage issues. A goal of this project is a voluntary program where local residents are educated on fish passage needs and encouraged to maintain fish passage in future years.

Cold Creek Fish Passage Improvement Project

Cold Creek is a tributary to Bogus Creek which is known to be a major spawning and rearing tributary for steelhead, coho and Chinook salmon in the mainstem Klamath River. There is a seasonal diversion located on Cold Creek that is currently impeding movement of juvenile salmonids during the summer months. This project would relocate the existing diversion approximately 200 feet upstream; install a screen and bypass channel; a pipe to transfer water; construct a boulder weir that will also provide fish passage; and install a head gate/measuring weir.

Seiad Creek Fish Screen Project

Seiad Creek is an important fisheries tributary to the mainstem Klamath River. This project is to install fish screens at four unscreened diversions on Seiad Creek.

Ti Creek Channel Restoration Project

In the 1964 flood, the lower half mile of Ti Creek was severely degraded as the creek diverted into a new high gradient channel, impeding coho and steelhead passage to approximately four miles of anadromous fish habitat upstream. This project would design, engineer and implement channel restoration by restoring the creek to its historic low gradient channel, including side channel pool habitat critical for juvenile salmonids over-summering in Middle Klamath River refugia.

Crawford Creek Fish Ladder

This project would install a fish ladder with baffles to provide anadromous fish passage above the Highway 96 cement box culvert on Crawford Creek. This project would open up 3,100 feet of low gradient habitat for coho and steelhead.

Tectah Creek Instream Restoration Creek

Tectah Creek, a tributary to the Lower Klamath River, supports populations of coho salmon, fall-run Chinook salmon, steelhead, cutthroat trout, and other non-anadromous species. Habitat within Tectah Creek has been substantially degraded from legacy land management practices that have resulted in increased sedimentation, clearance of large woody debris (LWD) from the stream channel, and harvest of LWD that would naturally be recruited to the stream. The result has been the minimization of habitat complexity within the stream; complexity essential to support viable populations of anadromous salmonids. The purpose of this project is to increase habitat complexity within the stream channel, primarily by introducing LWD to increase the overall diversity of habitat as well as to stimulate scour to remove fine sediment from lower portions of the stream.

Little Horse Creek Culvert Replacement

The existing culvert at the China Grade Road crossing on Little Horse Creek was severely damaged in the 2006 flood. It is still 80% plugged and needs to be replaced by a bridge or an open bottom arch culvert. This project would open up approximately one mile of coho and steelhead habitat.

Marble Mountain Ranch Water Conservation Project

Marble Mountain Ranch diverts up to 3.5 cfs from Stanshaw Creek for the purposes of hydropower generation, domestic use and irrigation. Stanshaw Creek is a cold water tributary that possess excellent habitat/refugia at the confluence. This project seeks to reduce diversion volume through piping the entire diversion. This project will also convert from flood to pressurized irrigation to reduce diversion demand. More efficient hydro-systems and/or return the diverted water volume used for hydro-power to Stanshaw Creek above the anadromous reach shall be explored. The project shall begin with an investigation in existing conditions/demands and review of alternatives resulting in a selected alternative for installation. In order to provide benefit this project will have to maintain a minimum 1.5 cfs stream flow at Highway 96 either by conservation or returning flow after hydro-generation use.

Unscreened Diversions on the Shasta River Mainstem and Parks Creek

Install fish screens at unscreened diversions located on the Shasta River and on Parks Creek in Siskiyou County. This project calls for the installation of fish screens on the three remaining unscreened diversions on Parks Creek and one major unscreened diversion known to exist on the Shasta River. The Shasta River provides critical habitat for adult and juvenile salmonids. Parks Creek is an important cold water tributary to the Shasta River and provides valuable rearing habitat for fisheries in the watershed.

Fort Goff Creek Grade Control / Baffles

The existing culvert at the Highway 96 crossing on Fort Goff Creek is a barrier. Fish passage for coho and steelhead could be restored to four miles of high quality habitat by creating grade control structures below the culvert and/or baffles in the culvert. This project would provide grade control and/or install baffles at the new structure.

Fish Passage through Diversion Improvement in the Scott River Watershed

This project would eliminate at least 12 fish barriers in the Scott River watershed (within over summering sites). All sites shall be located within stream reaches currently used by Chinook and/or coho salmon and shall be considered the highest priority diversion sites to be reconfigured. This project would provide fish passage either by re-profiling the diversion ditch, conversion of the diversion structure to one that provides fish passage, or changing/adding the point of diversion. Priority sites proposed for this project are on the following streams: Scott River (3 sites), Shackleford Creek (2 sites), French Creek (3 sites), East Fork (2 sites), Etna Creek (1 site), Big Slough (1 site).

Rail Creek Fish Passage

Rail Creek, tributary to the East Fork of the Scott River is a steelhead and coho stream. A reservoir levee established in 1964 prevents fish passage on Rail Creek. This project shall provide fish passage that will allow access to 0.9 miles of cold water anadromous habitat located above the reservoir to coho and steelhead. The project will also incorporate a diversion ditch (Rail Creek ditch) into the proposed fish passage channel design and install a fish screen on the ditch that meets DFG/NOAA fish screening criteria. The ditch (up to 8.0 cfs) will be piped 1,700' to the point of use to reduce diversion volume to provide more flow to the fish passage channel (ensuring at least 1.0

cfs in fish passage channel during low flow period). The fish passage channel will allow adult and juvenile access.

Shasta River Diversion Improvement and Fish Screen Installation

The water released from Lake Shastina has cold temperatures and is potential over-summering habitat for coho. There are two diversion dams that impede fish passage during irrigation season. These diversions are also unscreened. This project would do the following:

- ♦ Survey design and replace two fish passage barriers with boulder vortex weirs on the upper Shasta River.
- ♦ Survey design and install a head gate, fish screen and measuring weir on two unscreened diversions located on the Shasta River.

Lewiston 4 and Dark Creek Channel Rehabilitation Projects – Trinity River

This project shall:

- ♦ Increase rearing habitat for anadromous salmonids in areas of highest intensity natural spawning in the Trinity River by modifying channel banks and floodplains, constructing side channels, incorporating large woody debris, and revegetating floodplains and channel margins.
- ♦ Increase spawning habitat and channel complexity through the addition of coarse sediment.
- ♦ Reduce stranding by removing riparian berms, filling dredge ponds and sloping floodplain and gravel bar surfaces to drain to the river.
- ♦ Remove instream barriers such as relic gabion weirs to enhance sediment routing and access to spawning and rearing habitat.

Ullathorne Creek Fish Ladder

The existing culvert at the Highway 96 crossing on Ullathorne Creek is a barrier to all anadromous fish species and life stages and is blocking approximately one mile of high quality cold water habitat. This project would install a fish ladder leading up to the culvert and baffles in the existing culvert to prevent a velocity barrier at higher flows.

Stanshaw Creek Fish Ladder

The existing culvert at the Highway 96 crossing on Stanshaw Creek is currently blocking one mile of steelhead habitat above the culvert. This project would install a fish ladder below the culvert and install baffles inside the culvert to allow fish passage.

Scott River Tributary Gaging Program

Stream flow gages have been in operation on various tributaries to the Scott River since 2002 (East Fork, South Fork, Kidder Cr., Shackleford Cr, and Mill Creek). A gage was installed in another key tributary (Sugar Creek) in 2005. These gages provide valuable stream flow data needed for the development of a Scott River Water Balance Model, verification of the Water Trust and other water conservation programs. These gages were originally installed by the California Department of Water Resources (CDWR) and the U.S. Fish and Wildlife Service (USFWS). In 2005 the RCD took over operation of the three gages installed by the USFWS, and plans to continue operation as long as funds can be secured. The three remaining gages (East Fork, South Fork, and Kidder)

are still being operated by the CDWR. However, budget limitations annually put the gages in jeopardy, and the gages are some times shut down for periods of time. During the water master season of 2006, the RCD and CDWR have been cooperating to keep those gages in operation. This project would provide funding to operate these gages.

Shackleford Creek Confluence Restoration

Shackleford Creek is a prolific tributary to the Scott River that provides excellent spawning and rearing habitat (estimated 11 miles of anadromy). The Scott River confluence with Shackleford Creek is located at the base of Scott Valley, making the stream excellent potential refugia for fish in the Scott River seeking cold water during summer months. The limiting factor is that the confluence of Shackleford Creek disconnects due to a gravel bar deposited at the mouth.

Shackleford Creek enters the Scott River perpendicular to flow. During high flow the streams negate each other's velocities and bed load deposits at the mouth in the low flow channel. This project would allow/encourage Shackleford Creek to run parallel to the Scott River for a reach, and then connect after a downstream meander (five feet of fall). The realignment would allow both Shackleford Creek and the Scott River to flow parallel with each other, eliminating the requirement that Shackleford Creek flow over deposited gravel bar. The realignment would allow an historically natural channel to be reoccupied and increase the duration of connectivity of Shackleford Creek allowing earlier access of adults at a lower flow volume than currently occurs (about 20 cfs at DWR Shackleford Gage). The objective with Shackleford Creek and other cold water contributors is to hold connectivity with the Scott River to the period of year (early to mid-July) where the Scott River temperatures become lethal.

Farmers Ditch Fish Passage

Currently funding has been provided for one vortex weir to replace a gravel push up dam with a fish passage friendly diversion structure at a location on the Scott River. However, DFG engineering has identified the need for a second weir to increase durability of the new structure. This project is to add funding to the currently funded project to address new engineering concerns. This will allow for year round fish passage where it is currently lost by the first of August. The area is utilized by Chinook, coho and steelhead.

Diversion Demonstration Project on Shackleford Creek

Shackleford Creek is a prime spawning and rearing reach. There is currently a diversion that blocks fish passage from July until November. The point of diversion shall be relocated to the point of use using a pump system and the irrigation system shall be converted to a pressurized irrigation during the second half of the irrigation season. This project would allow the 0.9 cfs of water to stay in the stream for an additional 0.7 miles (in an area of known Chinook, coho and steelhead use) and only half of the amount of water would have to be diverted at the new location under a pressurized system to satisfy the agricultural need.

Scott River Head Gate and Measuring Weir Installation program

This project would install head gates and measuring devices on 14 diversions in priority locations including the Scott River, Patterson Creek, Sugar Creek and Etna Creek (in areas of known coho and steelhead use).

O'Neil Creek Fish Passage and Rearing Enhancement Project

Current replacement of the State Highway 96 culvert at O'Neil Creek with a bridge in 2006 has opened up new habitat for salmonids. However, this project may not result in expected benefits if the alluvial blockage below the bridge is not addressed. This project would design, engineer and implement reconfiguration of the alluvial blockage with an excavator. Further, this project would seek to modify the Klamath River floodplain at the mouth of the creek to create a deep side channel pool with complex habitat for over summering juvenile coho and other salmonids.

South Fork Clear Creek Fish Passage Enhancement

Coho, Chinook and steelhead fish passage is currently blocked to approximately 1.2 miles of high quality habitat above two log jams on the South Fork of Clear Creek. This project would notch the log jams to allow for fish passage using manual methods, including chain saws and grip hoists.

Scott River Fish Screen Construction and Maintenance Program

There are five known diversions that are currently unscreened within the Scott River Watershed. All diversions are within known coho and steelhead areas. This project would screen four of those five diversions. Funding for screening the fifth diversion has already been secured. All four diversions would receive a head gate and measuring weir as well a fish screen that meets DFG/NOAA fish screen criteria. Fish screen maintenance shall be conducted to ensure that the screens are maintained/properly operated and by-pass flows are present.

Storm Damage Repair of Vortex Boulder Weirs in the Scott River Watershed

Six boulder weirs in the Scott River watershed were damaged during the floods of 2006. This project would either repair the existing weir or add a second weir to spread energy over wider range. The sites are all within coho and steelhead rearing/spawning areas and two are within Chinook spawning areas.

Spawning Gravel Demonstration Project in the Scott River Watershed

There are several key stream reaches on Etna Creek, Kidder Creek and South Fork of Scott River that possess good water quality for over summering salmonid habitat but have very little appropriately sized gravel for spawning. This project shall install constrictors and import spawning gravel to reestablish spawning areas. The treatments shall depend on access and natural potential to provide gravels. Five areas will be treated in this project to develop spawning habitat for anadromous fish species.

Fish Screens and Feasibility Study of Montague Water Conservation District (MWCD) Infrastructure

The main objective of this project is to investigate existing conditions/affects of MWCD's infrastructure and propose/install improvements that either reduce or eliminate impacts to anadromous fishery habitat of the Shasta River watershed.

Tom Martin Creek Fish Passage and Rearing Enhancement Project

This project would modify the Klamath River floodplain at the mouth of Tom Martin Creek to create a deep side channel pool with complex habitat for over summering juvenile coho and other salmonids.

Summer Rearing Habitat Improvement

Instream fish habitat structures shall be installed in the Scott River watershed creating and/or maintaining pools and providing cover and/or woody debris in over-summering areas where temperatures are acceptable for anadromous fish but habitat components are limiting. This project will install 16-20 instream habitat structures in critical over-summering areas.

Pump Station and Fish Screen Improvements Project on the Shasta River

This project shall upgrade and make modifications to an existing pump station and install a new fish screen (if deemed necessary) at a location on the mainstem Shasta River.

Fish Screen and Fish Passage Improvement Project

This project shall install properly functioning fish screens on the mainstem Klamath River above the Interstate Highway 5 Bridge.

Little Shasta River Fish Screen and Passage Improvement Project

This project shall install a fish screen and improve to fish passage on the Little Shasta River. The Little Shasta River is a tributary to the Shasta River.

Manley Fish Screen and Fish Passage Improvements Project

This project shall install of a fish screen and improve fish passage at a small diversion on Oregon Slough. The Oregon Slough is a small tributary of the Shasta River and enters the river below all fish barrier diversions the Shasta River.

Instream Flow Assessment Methodology on the Shasta River

This project will assist the Department in evaluating and comparing several instream flow assessment methodologies for the purpose of facilitating compliance with the Fish and Game Code, providing outreach to landowners, and leading to recovery of anadromous fish populations in the Shasta River watershed.

Item 3600-001-0001 Department of Fish and Game

7. One-Time General Fund Augmentations.

*On or before February 1, 2007, the Department shall provide a report to the Legislature on its expenditures of one-time General Fund augmentations in the 2006-07 Budget Act for activities in the marine region, salmon and steelhead restoration projects, **non-game fish and wildlife trust resources**, and funding for the Coastal Wetlands Account.*

DEPARTMENT RESPONSE:

FY 2006-07 -- Non-game Fish and Wildlife Trust Resources

PROGRAM DESCRIPTION

The \$10 million one-time General Fund (GF) allocation for non-game fish and wildlife trust resources has been allocated after substantial effort statewide to identify priority projects that the Department of Fish and Game (Department) could implement in a timely fashion. Additionally, to maximize resources, the Department worked to identify projects that could be jointly funded by these GF monies and Federal funds such as the State Wildlife Grant program funding (approximately \$3.0 million in federal FY 2006-07). These federal funds are available to the Department for “species of greatest conservation need” and consistent with our recently drafted “California Wildlife Action Plan.” The Department’s goal included providing the necessary State match as required for use of the federal funds.

The Department identified numerous specific elements, project ideas, and dollar amounts for addressing West Nile Virus (up to \$1.5 million); Invasive species (\$900,000); non-game-related enforcement needs (\$400,000, [revised to \$900,000]), and communication/outreach (\$120,000) related to non-game wildlife activities. However, after several exercises, reviews, and priority-setting meetings, the Department has narrowed the initial recommendations and identified priority needs for implementing projects based on the available funding. The Department has had to further develop the projects, evaluate logistical considerations, operational efficiency, and feasibility issues.

The allocations for these projects, to be completed over the period of three fiscal years are, by category:

BUDGETED RESOURCES

Non-game related Law Enforcement (\$900,000)

One-time funding of \$900,000 for non-game species improved the Law Enforcement Division's (LED) ability to purchase equipment that will benefit all species and habitat. Over the last several years equipment purchase has been severely limited. The Department's Forensic Lab will utilize approximately \$250,000 to purchase equipment that will establish genetic markers on various species, both in the game and non-game arenas. Air Services will also utilize approximately \$250,000 for plane maintenance and a portion will go toward the purchase of a new Vulcan Air high winged aircraft. Air Services provides aerial support for many non-game surveys, watershed observations, habitat destruction or manipulation, and pollution investigations. Additional equipment purchases will include All-Terrain Vehicles, digital cameras and recorders, and Global Positioning Systems (GPS) for the marking and locating of areas of interest and investigations/evidence.

In addition, LED and Department Attorneys are utilizing \$50,000 to create training for District Attorney's statewide in conferences for education on the critical importance and nuances of wildlife and habitat law enforcement and regulation support. Overtime opportunities in general field work and directed enforcement activities will also be funded statewide along with travel costs. Properties owned by the Department will be the focus of overtime opportunities to address unauthorized off road vehicle use, illegal camps and other unauthorized activities.

Communication/Outreach related to Non-game Wildlife Activities (\$120,000)

The Department's refocus on informing and educating the public about wildlife issues through communications, education and outreach has provided significant opportunities for connecting with and informing constituents and stakeholders about the Department and its stewardship responsibilities and activities. The non-game funds that have been provided will enable the Department to do the following projects:

- Keep Me Wild Campaign
- Project WILD (Terrestrial)
- Senior Volunteer Program

West Nile Virus (Up to \$1,500,000)

The purpose of this program is to implement habitat-based Best Management Practices (BMPs) to reduce mosquito production on the Department's major wetland wildlife areas, while continuing to maintain and enhance wetland habitat values.

Summary:

- 1) Statewide program to control West Nile Virus (WNV) and implement BMPs as identified by Fish and Game Code Section (FGC) 1507.

- 2) Program sunsets on January 1, 2010.
- 3) Promotes the use of habitat-based BMPs to reduce mosquito populations in managed wetlands.
- 4) Seeks to minimize the cost and reduce the need for chemical control of mosquitoes.
- 5) Increases the level of coordination and communication between the Department and local Mosquito Vector Control Districts (MVCD) in regard to mosquito surveillance, treatment, and wetland flooding.
- 6) \$1,500,000 appropriated to the program in FY 2006-07 to carry out the provisions of FGC 1507.

Department Action Items:

- 1) Identify BMPs and develop project proposals that reduce mosquito populations below locally established thresholds while continuing to maintain and enhance wetland habitat values on Department lands. Coordinate BMPs with local MVCDs. **(Completed)**
- 2) Solicit BMP proposals from regional lands staff. **(Completed)**
- 3) Prioritize funding requests from wildlife areas, in partnership with the Integrated Pest Management Committee of the MVCAC, based on current abatement costs, mosquito production and potential control effectiveness, feasibility, and level of coordination with local MVCDs. **(Completed in November 2006)**
- 4) Develop contracts to implement BMPs. **(Completed in spring 2006)**
- 5) Implement BMP projects. **(To begin summer 2007)**

See timeline of activities and 2006 Project List below.

Timeline of Activities:

FY 2006-07	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Funding made available by Legislature												
Identify BMPs & develop proposals												
Proposals due to Lands Program												
Rank proposals & award funding												
Develop contracts												
FY 2007-08	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Develop contracts (cont.)												
Implement BMP projects												

**MOSQUITO BEST MANAGEMENT PRACTICES (BMP) & WNV CONTROL PROGRAM
2006 PROJECT LIST:**

TOTAL 2006 FUNDING	\$1,500,000
DEPARTMENT OVERHEAD @ 13.58%	\$ 179,345
CONTINGENCY AND PROJECTS TO BE DETERMINED	\$ 96,455
PROJECT FUNDING	\$1,224,200

REGION 1 PROJECTS:

1) Anderson River Park (abatement)	\$ 4,000
2) Cottonwood Creek Wildlife Area (abatement & brush removal)	\$ 2,000
Subtotal:	\$ 6,000

REGION 2 PROJECTS:

1) Gray Lodge Wildlife Area

- Field 93 Wetland Enhancement: Survey field, remove dilapidated irrigation levees, construct new levees, construct new water delivery ditch and drainage swales, install new water control structures, laser-level minor areas to improve drainage and irrigation capabilities, restore permanent wetland

Project Total (contract):	\$ 387,000
----------------------------------	-------------------

2) Woodbridge Ecological Reserve

- Water control structure replacement (contract) **\$ 40,000**

3) Yolo Wildlife Area

- Year 1: Stubble discing (contract) **\$ 38,400**
- Year 2: Stubble discing (contract) **\$ 12,000**
- Year 1: Herbicide spraying (contract) **\$ 8,500**
- Year 2: Herbicide spraying (contract) **\$ 4,000**
- Restoration of vernal pool habitat/removal of irrigation checks (contract) **\$ 20,000**

Subtotal:	\$ 82,900
------------------	------------------

4) Upper Butte Basin Wildlife Area

- Fields 207 & 210: Levee repair, wetland de-leveling (contract) **\$ 40,000**
- Field 308B: Discing, swale construction, water control installation (contract) **\$ 32,000**

Subtotal	\$ 72,000
-----------------	------------------

REGION 3 PROJECTS:**1) Grizzly Island Wildlife Area:***Year 1*

- | | |
|--|-----------|
| • Core levees (contract) | \$ 23,500 |
| • Replace (9) water controls and pipe (contract) | \$ 84,000 |

Subtotal:	\$ 107,500
------------------	-------------------

2) Bair Island (abatement)	\$ 86,000
-----------------------------------	------------------

REGION 4 PROJECTS:**1) Los Banos Wildlife Area Complex**

- | | |
|---|-----------|
| • Rome 13' stubble disc (purchase) | \$ 42,100 |
| • Tractor rental (4 mos.) | \$ 12,800 |
| • Herbicide spraying in canals (contract) | \$ 23,800 |
| • Canal excavation (contract) | \$ 29,600 |

Subtotal:	\$ 108,300
------------------	-------------------

2) North Grasslands Wildlife Area

- | | |
|---|-----------|
| • John Deere rotary mower (purchase) | \$ 18,000 |
| • Tractor rental (3 mos.) | \$ 9,600 |
| • Canal excavation (contract) | \$ 12,800 |
| • Wetland swale construction (contract) | \$ 50,000 |
| • Herbicide spraying in canals (contract) | \$ 8,000 |

Subtotal:	\$ 98,400
------------------	------------------

3) Mendota Wildlife Area

- | | |
|--|-----------|
| • Domes 15' offset disc (purchase) | \$ 35,000 |
| • Screw gate and pipe replacement (DFG installation) | \$ 49,700 |
| • Wetland swale construction (contract) | \$ 60,000 |
| • Canal excavation (contract) | \$ 24,000 |
| • John Deere gator & Fire caymen sprayer (purchase) | \$ 17,500 |

Subtotal:	\$ 186,200
------------------	-------------------

REGION 5 PROJECTS:

None submitted at this time.

REGION 6 PROJECTS:**1) Imperial Wildlife Area**

- Gearmore rotary mower (purchase) \$ 16,400

2) San Jacinto Wildlife Area

- Flail mower (purchase) \$ 16,500
- Rotary mower (purchase) \$ 7,000
- Tractor rental \$ 10,000

Subtotal: \$ 33,500

GRAND TOTAL:	\$1,224,200
---------------------	--------------------

Invasive Species (\$900,000)

A team of Department staff developed criteria and identified various projects on Department lands throughout the state that would be most beneficial to non-game wildlife and their habitats if control measures were implemented. Following are the project locations by region, and estimated dollar amount to initiate the control measures:

Region 1:	Honey Lake/Willow Creek.....	\$ 42,000
	Ash Creek WA.....	\$ 31,000
	Shasta Vly./Horseshoe Ranch.	\$ 17,000
	Butte Valley.....	\$ 26,000
Region 2:	Grey Lodge.....	\$ 30,000
	Spenceville Ponds.....	\$ 24,000
	Yolo WA.....	\$ 15,000
	Upper Butte Basin.....	\$ 47,000
Region 3:	Grizzly Island/Hill Slough.....	\$ 74,125
	Cache Creek.....	\$ 9,875
	Eden Landing.....	\$ 15,000
	Elkhorn Slough.....	\$14,000
	Watsonville Slough.....	\$ 3,000
Region 4:	Canebrake ER.....	\$ 34,000
	Multi-ER (Thistles, Knapweed).	\$ 52,000
	Yaudanchi ER.....	\$ 30,000
Region 5:	San Felipe Valley.....	\$ 66,500
	Hollenbeck Canyon.....	\$ 49,500
Region 6:	Camp Cady.....	\$ 46,000
	San Felipe Creek.....	\$ 20,000
	Magnesia Springs–Santa Rosa	\$ 50,000
Contingency and Additional project TBD		\$ 96,393

Grand Total.....	\$792,393
-------------------------	------------------

Non-game Wildlife Projects**(Balance remaining from the \$10.0 million One-Time General Fund)**

Following are individual Department Projects approved by the Director for funding. Additional projects may be added, or some projects eliminated, depending on the Department's identified priorities and ability to implement in a timely manner. Environmental conditions, weather, staffing changes, or other unanticipated events may alter the list of projects to some extent.

Non-game Wildlife Projects Proposed by Region



Osprey nest platform under construction



Survey for Mountain yellow-legged frogs

Non-Game Fish and Wildlife Trust One-Time General Fund Augmentation	
	General Fund Total
West Nile Virus Allocation-Detail Provided Above	\$1,500,000
Invasive Species Allocation-Detail Provided Above	\$900,000
Enforcement Allocation-Detail Provided Above	\$900,000
Outreach and Education Allocation-Detail Provided Above	\$120,000
TOTAL PROGRAM ALLOCATIONS	\$ 3,420,000
Region 1	
Honey Lake Water Cons.	\$348,931
R1 Lands Riparian Restoration	\$173,532
Ash Creek Upland Enhancement	\$134,348
Battle Creek Grassland Enhance	\$55,978
Horseshoe Ranch Wildlife Area Riparian Enhancement	\$22,391
Provide State match for HSUF	\$33,587
Region 2	
Woodbridge Ecological Reserve Crane Habitat	\$67,442
Hallelujah Junction Riparian Enhance	\$17,465
Teal Brook Riparian and Conservation Easement Acquisition	\$225,099
Stone Ridge Ecological Reserve Habitat Enhance	\$39,185
Provide State Match for PSMFC/CSUF contracts -field support	\$33,587
Region 3 (pre-org R3)	
Elkhorn Slough Pond enhance	\$39,185
Moss Landing Wildlife Area Anti-perch	\$3,359
Santa Rosa Plain Invasive Plant Management	\$45,902
Cunningham Marsh Conservation Easement Blackberry Removal	\$2,351
Santa Rosa Plain Eucalyptus Removal	\$111,956
Indian Valley Wildlife Area Osprey Platform	\$5,038
Napa Sonoma Plover Habitat Enhance	\$55,978
Carizzo Plain Riparian Fencing	\$151,141
Canada de los Osos Ecological Reserve Grassland Weed Control	\$11,196
Napa Sonoma Marsh Revegetation	\$5,598
Eden Landing Burrowing Owl Habitat Enhancement	\$16,793
Carizzo Yellow Star Thistle Removal	\$8,397
Santa Rosa Plain Blackberry Removal	\$1,679
Napa River Ecological Reserve Invasive Plant Control	\$19,033
Carizzo Plain Ecological Reserve Prescribed Burn	\$27,989
Provide State Match for CSUF contracts -field support	\$33,587
Region 4	
Los Banos/Mendota Restoration Enhance Seasonal Wetlands	\$135,370
Los Banos Sandhill Crane Winter Forage Habitat Restoration	\$16,793
Regional Ecological Reserves Vernal Pool Habitat Enhancement	\$111,956
San Joaquin River Hardhead Study	\$120,328
Sierra Foothill Stream Surveys	\$214,335
Provide State Match for CSUF contracts -field support	\$33,587

Region 5	
Burton Mesa Fencing, Survey Work	\$128,750
Burrowing Owl Enhancement Project	\$13,435
Uppper Newport-Back Bay Science Center	\$895,651
Provide State Match for Resource Assessment Projects	\$33,587
Region 6	
Imperial Wildlife Area Wister Marsh Bird Management	\$173,724
Peninsular Bighorn Sheep Water Source Enhance.	\$90,685
Non-Game Desert Fisheries Down-listing and Recovery	\$235,108
Mountain Yellow-legged Frog Habitat Restoration	\$69,040
Mitigation Bank Plan for Mojave	\$223,913
Provide State Match for PSMFC/CSUF contracts -field support	\$33,587
Statewide or HQ Projects	
North Spotted Owl Mtgs. Travel	\$6,717
Urban Nuisance/Depredation Wildlife	\$283,250
California Bat Conservation Plan	\$22,451
Burrowing Owl Conservation Strategy	\$107,577
Western Pond Turtle Conservation Strategy	\$80,609
Greater Sage Grouse	\$168,354
Hoopa Fisher Study	\$93,297
Revision of Mammal Species of Special Concern Publication	\$27,429
Xantu's Murrelet Recovery Planning & Monitoring	\$30,857
Tricolored Blackbird	\$117,599
Investigation of Lead Toxicology in Raptors	\$167,934
High Elevation Aquatic Surveys	\$44,783
UC Davis, Coop Applied Research Studies	\$568,177
Burrowing Owl Surveys Statewide	\$67,174
Infrastructure Inventory DFG lands [startup]	\$279,891
R1 DFG Lands Public Ed. Trails	\$50,380
R1 DFG lands Interpretive Panels	\$30,228
R2 Lands Public Ed. Interpretative Panels	\$33,587
R4 Los Banos Grassland Educ. Ctr support	\$67,174
R4 Public outreach/education Fresno area	\$111,956
TOTAL PROJECTS	\$6,580,000
GRAND TOTAL	\$10,000,000

Note: WNV and invasive projects in regions not specifically listed here, but are described in the report.

The projects below reflect only the State funding amount. Several of the projects will be developed as Federal State Wildlife Grant projects such that a federal funding amount will contribute to achieving project completion.

Region 1

Honey Lake Wildlife Area: Water Conservation and Delivery (Lassen County) (\$348,931)

Improve water conservation and delivery by construction and installation of two (2) pivot irrigation systems (Dakin and Fleming Units). Open ditches would be replaced with pipeline and flood irrigation would be replaced with pivot irrigation systems conserving water needs which can be used elsewhere to restore wetlands. Habitats that would directly benefit (372 acres) include farmed and wetland areas that provide forage and nesting cover for sandhill cranes, shorebirds, small mammals, foraging and nesting raptors, passerines, etc. Indirect benefits include additional water delivery to existing and restored seasonal and perennial wetlands.

Riparian Restoration: Department Lands (Siskiyou, Lassen, Modoc, Humboldt Counties) (\$173,532)

Restore and enhance existing riparian habitats, installation of livestock and/or rodent exclusion fencing; Shasta Valley- 2 miles of the Little Shasta River (30 acres), Ash Creek - 2 miles along Ash Creek (up to 30 acres), Fay Slough (25 acres), Honey Lake (30 acres), Eel River (20 acres); total of 140 acres.

Ash Creek Wildlife Area: Upland Habitat Enhancement (Lassen/Modoc Counties) \$134,348)

Installation of transportable pivot irrigation system (pipeline and pivot) that will provide irrigation to 480 acres; an area currently under dryland farming. An existing well is already in place and once installed, the area would be managed for cereal grains which provide benefits to sandhill crane (premiere species for the area), Swainson's hawk, small mammals, raptors, and passerines.

Battle Creek Wildlife Area Native Grassland Restoration (\$55,978)

Restore 50 acres of native perennial grassland community. Area currently covered with exotic annual grasses and star thistle.

Horseshoe Ranch WA Riparian Restoration and Enhancement (Siskiyou County) (\$22,391)

Purchase and installation of exclusion fencing (feral horses and trespass cattle) around freshwater seeps (totals 20 acres). Materials include steel corners and H braces anchored in concrete.

Region 2

Woodbridge ER Habitat Improvements: Greater Sandhill Crane (\$67,442)

The Greater Sandhill Crane is listed as a threatened and fully protected species in California. This species winters in the Sacramento Valley, at the Woodbridge Ecological Reserve (WER). The WER is managed primarily for the sandhill crane, with management consisting of flooding marshland for optimal crane foraging opportunity and providing public education tours. This funding is needed to maintain or enhance habitat for the species and visitor facilities.

Hallelujah Junction Montane: Riparian Habitat Restoration Project, Balls Canyon Creek (\$17,465)

Balls Canyon Creek (BCC) is an important perennial stream that flows through the Hallelujah Junction Wildlife Area (HJWA). In 2005, a fence was constructed that prevents cattle from accessing BCC. This is having a positive impact on the montane riparian habitat, with significant new leader growth on the aspen and black cottonwood. The Department is proposing to plant aspen, black cottonwood and willow along both sides of BCC to augment the natural regeneration occurring now. Restoration will benefit non-game fish and wildlife species including neotropical migrant birds and pygmy rabbits.

Teal Brook Farms: Riparian Restoration and Conservation Easement Acquisition (\$225,099)

This project would establish environmental and farmland conservation practices that will promote habitat connectivity in key wildlife areas and enhancement of riparian corridors. Project provides for both habitat restoration and easement acquisition of the approximate 187 acre Teal Brook Farms property located along Coon Creek in eastern Sutter County. The project provides restoration of riparian, valley oak woodland, grassland and wetland habitats on 47 acres south of Coon Creek including a conservation easement for this portion while the remaining 140 acres, currently under rice cultivation, will be encumbered with an agricultural easement funded solely by a grant from the California Department of Conservation (CDC).

Stone Ridge Ecological Reserve (ER) (\$39,185)

Fencing for the 754 acre Stone Ridge ER that was established for the protection of State-endangered Butte County meadowfoam vernal pool habitat, winter range foraging habitat for the East Tehama deer herd, wintering Bald eagles, riparian resources supporting rearing habitat for anadromous fish, resident Western burrowing owls and numerous federally protected plants and crustaceans.

Region 3

Elkhorn Slough Ecological Reserve (ESER): Cattail Swale Freshwater Pond Habitat Enhancement Project (\$39,185)

Cattail Swale is a freshwater pond on the ESER that is a known site for breeding Santa Cruz Long-toed salamanders. This is one of only five known Santa Cruz Long-toed Salamander breeding sites within the area. The project will include making significant improvements to a degraded water outlet structure in the pond, and planning and mitigating for poor water quality inputs by implementing erosion control and best stewardship practices.

Moss Landing Wildlife Area: Install Anti-perch Material (\$3,359)

This project would purchase anti-perch material to discourage avian predators from perching on walkways and water control structures, and then preying upon snowy plover chicks at the Moss Landing Wildlife Area.

Santa Rosa Plain Ecological Reserve (ER): Invasive Plant Management for Vernal Pool Habitat (\$45,902)

The project would control six invasive weed species at three units of the Santa Rosa Plain Vernal Pool ER, and one invasive weed species at the Laguna Wildlife Area. Backpack herbicide sprayers will be used for six species, and a string “weed-eater” will be used for one species. The project will benefit vernal pool species, including State and Federally listed plants, high quality coastal prairie grassland, and freshwater marsh.

Cunningham Marsh Conservation Easement: Blackberry Removal (\$2,351)

This property is jointly managed by the Department and California Native Plant Society (CNPS). Small stands of blackberry are scattered across 10 acres of the 21.30 acre parcel. The plant is choking out endangered species Pitkin Marsh lily, [*Lilium pardalinum ssp. Pitkinense*](#), open grasslands, riparian habitats, and marshlands on the property, and severely restricting access. The objective of the project would be to remove as much of the blackberry as possible to release native species. The berry patches would be removed by surface dragging with a tractor blade, piled, dried and burned or removed. Surface removal will be top scrape and will not cut the soils deeply. Following removal, herbicide will be used to treat remaining growth and all new growth annually for three years. This has been an ongoing project at a smaller scale for many years. Non-game species that will benefit are Pitkin lilies, Valley oak, Black oak, Oregon ash, willow, native grasslands, and associated species (deer, raptors, passerine birds). Herbicide applications near lily areas would be by hand, and there are no other requirements needed for treatment. This will be the Department's portion of other funding that is presently being furnished by CNPS. CNPS members have herbicide application experience and requirements. A cooperative program is already in place with the local CNPS and volunteers are available to assist.

Santa Rosa Plain Vernal Pool Ecological Reserve: Eucalyptus Grove Removal (\$111,956)

The entire 10 acre site contains a grove of eucalyptus and poison oak, adjacent to about 1 acre of eucalyptus on the south, all of which appears to be one large grove. Vernal pool swales flow through the site from the west and south, and contain endangered Sebastopol meadowfoam, *Limnanthes vinculans*. The volatile chemicals in the eucalyptus kill all flora and fauna in the pools, and the *L. vinculans* does not extend through or past the site. In addition, the grove runoff flows into the Laguna de Santa Rosa with suppression effects on native flora and fauna. The objective of the project would be to remove most of the eucalyptus (with exception of nesting grove for Red-Tailed Hawks) and reestablish the seasonal wetland community and endangered species, both on-site and through the site to the vernal pool complex we own on an adjoining property to the east. The trees will be cut near the base and felled, cut into lengths for transport, and hauled from the area. Slash will be piled and removed also. Stumps will be tractor ripped and removed, or drilled and inoculated with decomposing bacteria, depending on costs. Non-game species that will benefit are Valley oak, endangered *L. vinculans*, many other potential vernal pools associated species, native grasslands and associated species. There are no listed or sensitive species on site due to the eucalyptus. Removal by larger companies with sale of wood for paper outlets is being investigated, thus funding costs could be significantly lower. A cooperative program with the local Resource Conservation District may also be less expensive and is also being investigated.

Indian Valley Wildlife Area: Osprey Nesting Platform Building and Placement (\$5,038)

Indian Valley Reservoir was created over 40 years ago with the flooding of Indian Valley in Eastern Lake County. The Valley oaks within the valley were left and persisted over the years providing nesting locations for osprey. Few to none of these skeleton trees remain. The project consists of the building and placement of three poles (20 feet in length) above the high water mark of Indian Valley Reservoir on the Indian Valley Wildlife Area. Work conducted will be the auguring of a three foot deep hole for the placement of each pole. Each pole will have a two foot square platform built on top to be utilized by ospreys for nest support. Signs shall be placed on or near each pole identifying the area as Indian Valley Wildlife Area. The proposed project will not impact any riparian vegetation, cultural sites, listed plant or animal species. Poles will be located to avoid the nesting bald eagle site on the northeastern edge of the reservoir. The work is to be done in late fall to avoid disturbing nesting bald eagles.

Napa Sonoma Marsh: Create Nesting Plover Habitat (\$55,978)

This project would place gravel on an old farm service road in the Huichica Creek Unit in order to create plover nesting habitat. Killdeer, California snowy plover, black-bellied plover, semi-palmated plover, and American golden plover frequent the Napa-Sonoma Marshes Wildlife Area. The service road is approximately 1.5 miles in length and will require approximately 3,000 tons of Class 2 road base to construct (3-4 inches in depth).

Carrizo Plain Ecological Reserve: San Juan Creek Riparian Fencing (Chimineas Unit) (\$151,141)

Approximately 3.9 miles of San Juan Creek runs through the western edge of the Chimineas Unit of the Carrizo Plain Ecological Reserve. This reach of the creek includes Broken Dam, a four acre pond, as well as several small year round pools. Livestock have been historically grazed throughout the entire riparian area and this has repressed and degraded riparian vegetation. Livestock grazing is expected to continue to benefit ecological resources in the uplands. The proposed project is to fence the entire riparian area in order to benefit riparian habitat, neotropical migrant birds, as well as southwestern pond turtles and spadefoot toads.

Canada de los Osos Ecological Reserve (ER): Weed Control for Grassland Bird Species Habitat Enhancement (\$11,196)

Medusa head is spreading on the east end of the ER, as well as in other small areas throughout the ER. The large areas would require spraying by helicopter to eradicate. Small areas could be spot sprayed from an ATV.

Napa Sonoma Marsh: Revegetation Project (\$5,598)

This project would provide improvement and extension of existing drip irrigation line/system and replacement of dead trees and shrubs along existing line (Northern Huichica Creek. Unit fence line along the railroad with new native tree and shrub plant stock. The line would be extended to the existing margins of the Buchli Stadium Parking Lot as well as extended approximately 0.25 miles from current end of drip line to the west.

Eden Landing Ecological Reserve (ELER): Burrowing Owl Habitat Enhancement (\$16,793)

This project will provide control of non-native plants, including annual mustard, wild radish to benefit burrowing owls and other native wildlife along levee roads. Burrowing owls are known at ELER and in the general vicinity, as well as California ground squirrels which provide abandoned burrows used by owls, and other grassland and wetland birds, including raptors and passerines. Approximately three miles of levee roads would be treated with herbicide.

Carrizo Plain Ecological Reserve: Yellow-star Thistle removal (Chimineas Unit) (\$8,397)

Yellow-star thistle is known to decrease habitat values for a number of native plant and animal species throughout California. At present, there are only three patches of yellow-star thistle totaling approximately 30 acres on the entire 30,000 acre Chimineas Unit. The proposed project is to spray the yellow-star thistle patches with Transline annually over a three year period. This will be expected to kill all three patches of yellow-star thistle to benefit native plants as well as native wildlife which inhabit the grasslands. The project is also expected to eliminate the potential for yellow-star thistle to expand to a much larger area thereby reducing any future costs.

Santa Rosa Plain Ecological Reserve: Atascadero Marsh Riparian Restoration Blackberry Removal (\$1,679)

Small stands of blackberry cover 5 acres of the 44 acre parcel. The plant is choking out open grasslands, riparian habitats, and small vernal pools on the property and severely restricting access. The berry patches will be removed by surface dragging with a tractor blade, piled, dried and burned. Surface removal will not cut the soils deeply. Following removal, herbicide will be used to treat remaining growth and all new growth annually for two years. Non-game species that will benefit are Valley Oak, Oregon ash, a historic vernal pool site that contained the endangered *L. vinculans*, many other potential vernal pool associated species, native grasslands and associated species (deer, raptors, passerine birds). A cooperative program with the local Resource Conservation District is being investigated. This parcel also has a public trail developed and managed by the local Sonoma County Regional Parks Department, and the blackberries are restricting vistas and invading the trail system. Regional Parks keeps the trails clean, but a wider effort is needed.

Napa River Ecological Reserve - Invasive Plant Species Control (\$19,033)

The objective is to eradicate or substantially control three (3) non-native plants (Harding grass, big leaf periwinkle, and blackberry) before the native plant ecosystem is substantially degraded or eliminated, and to prevent the spread of these highly invasive plants into other sites. The goal is to eliminate or substantially reduce the cover of the target plants by 80 percent. The Harding grass stand exists in the flat lands along the Yountville Crossroads parking lot; approximately one acre. The big leaf periwinkle is located on the east side of the Napa River along the public access trail; approximately one acre. Blackberry stands have filled the under story of the reserves oldest oak groves; approximately seven acres. Each of the species out-competes and displaces native plant species, decreasing wildlife value. Large stands of these plants can become a fire hazard during dry periods. Mechanical and manual methods will be used to control and eradicate the plants. Treatments will include mowing, cutting, pulling, and herbicide spraying. Species benefiting from the project include all native riparian and grassland plant species, neo-tropical migrants, raptors and small mammals.

Carrizo Plain Ecological Reserve: Prescribed Burn (Chimineas Unit) (\$27,989)

There are approximately 4,000 acres of mixed chaparral on the Chimineas Unit. Over half of this area has burned over the past 20 years. However, several large patches of decadent chamise are present in the northwestern corner of the Chimineas Unit. This area totals approximately 1,500 acres and there are no records of this area burning in over 100 years. The mixed chaparral in this area is positioned within several large stands of blue-oak woodland. The proposed project is to conduct a prescribed burn of approximately 1,250 acres in order to protect the blue-oak woodland from a catastrophic fire event and to benefit early successional plant and animal species.

Region 4

Los Banos/Mendota Restoration: Enhancement of Seasonal Wetlands (\$135,370)

This project would conduct physical manipulation of vegetation, and managed hydrology to change physical habitat characteristics, plant species diversity, and invertebrate production, and plant and invertebrate diversity. Site: One to three Wildlife Areas in Region 4. With funding support, monitoring could provide information on wildlife response.

Los Banos Sandhill Crane Winter Forage Habitat Restoration (\$16,793)

This project would restore 100 acres of perennial grassland (vegetation management).

Regional Ecological Reserves Vernal Pool and Grassland Habitat Enhancement (\$111,956)

This project would enhance non-native grassland and vernal pool grassland supporting numerous non-game species through a combination of grazing management, including necessary watering and fence infrastructure, and site security (addressing trespass farming, trespass tailwater disposal, vandalism, etc.). Primary sites are several Ecological Reserves in Region 4.

San Joaquin River Hardhead Study (\$120,328)

This project will study the hardhead (*Mylopharodon conocephalus*) spawning habits and characteristics in the Upper San Joaquin River of Fresno and Madera counties. The project will involve radio-tracking of marked fish and extensive field data collection to characterize their habitats, use patterns, and identify habitat structure and physical habitat parameters related to use by the species in the river system.

Sierra Foothill Streams Surveys (\$214,335)

This project will continue the ongoing Department effort to inventory fish, amphibian, and reptile species in Sierra Nevada foothill streams in the region. The basic inventory and distribution data is critical for understanding potential implications of various projects as well as the status of aquatic species in the central and Southern Sierra Nevada foothills.

Region 5

Burton Mesa Ecological Reserve New Public Entrance Gates, Fencing, Boundary Survey (\$128,750)

The Department manages over 5,000 acres in northern Santa Barbara County known as the Burton Mesa ER. The site contains a rare chaparral community endemic only in this area. It is currently being degraded by off-road vehicle use and unauthorized public use. This proposal is intended to fund the necessary boundary surveys, fencing, vehicular barriers, gates and public entrances at the reserve to protect the site's non-game and sensitive species and to encourage appropriate public use.

Burrowing Owl Enhancement Project (\$13,435)

The Department has the opportunity to enhance burrowing owl populations at three selected sites within Region 5, two in Orange County and one in San Diego County. The burrowing owl is a species of statewide conservation priority and is not listed as threatened or endangered by either the state or federal government. This proposal is intended to fund enhancements that will aid in the recovery of this species in select locations which will promote its long-term survival and potentially reduce the need for pursuing listing of the species.

Upper Newport Bay Ecological Reserve (UNBR), Back Bay Science Center, Orange County (\$895,651)

The construction of an approximate \$6 million dollar project is underway at UNBER; the Back Bay Science Center (BBSC). The project has not been completely funded, so only three out of four wings will be completed under the current contract. The three wings being constructed include 1) the BBSC “teaching lab” for the Department educational and research programs, 2) Shop, storage and boat garage for the Department use, plus public restrooms; and 3) County of Orange water quality laboratory. The 4th wing would contain offices for the Department’s reserve personnel, and work stations for volunteers (including Senior Volunteer Program), interns and for visiting researchers/students, plus a resource area/library and public meeting room. The construction has completed the mat foundation with stub-outs for utilities, but the remainder cannot be constructed until \$800,000 is raised. The Department has been working with other agency partners and not-for-profit organizations. The Department has signed MOUs with University College-Irvine, City of Newport Beach, County of Orange, California Wildlife Foundation, Newport Bay Naturalists and Friends and has partnership arrangements with others as well (Coastal Commission education staff is on-site) for coordination of programs at UNBER in the BBSC.

Currently a highly sensitive campaign is underway by some local public agencies. They are advocating the Department is unable to conduct programs or manage the ER because of limited resources. However, the Department’s commitment to the BBSC has been publicly declared numerous times over the last four to five years by the Department’s Regional Manager and the Executive Director. By the Department’s commitment to fund the remainder of the BBSC through the use of this one-time funding opportunity, it will reflect we are truly committed to managing the reserve in a proactive manner, we know we have a magnificent resource at Upper Newport Bay, and that we can succeed. By use of this one-time funding for this project, the Department will do more to enhance political relationships in Orange County and at the same time fulfill our mission to providing appropriate public education of Threatened & Endangered and non-game species.

Region 6

Imperial Wildlife Area: Wister Unit- Marsh Bird Management (\$173,724)

This project would provide a three-year management program including water for fresh-water marsh habitat and staff time for habitat maintenance and rotation.

Peninsular Bighorn Sheep Water Source Enhancement (\$90,685)

This project would provide for replacement and development of water sources for bighorn sheep in the Peninsular, Chocolate and Oracopia mountain ranges. The project will include replacement of one 20+ year old solar well, development of two new wells, installation of drinkers and restoration of natural tenajas, seeps and springs. Costs will include materials and transportation. Water source development will occur on Department owned or controlled lands, where possible.

Non-game Desert Fishes Down-listing and Recovery (\$235,108)

Recovery of five State and Federally listed non-game species and State Species of Special Concern in the Owens Valley and Mojave Desert is foreseen by two recovery plans; the 1998 *Owens Basin Wetland and Aquatic Species Recovery Plan*, and the 1984 *Recovery Plan for the Mohave Tui Chub*.

Mountain Yellow-Legged Frog Habitat Restoration (\$69,040)

Introduced trout will be removed from lakes and tributary waters using a variety of methods in order to benefit mountain yellow-legged frogs (MYLF) in five separate drainages.

Mitigation Bank(s) Plan for Mojave Desert Species (\$223,913)

This proposed project will develop a Mojave Desert Mitigation Bank Plan for the Mojave Desert area that is currently not covered under a multi-species habitat plan. This plan is desirable for the Department to obtain and maintain a continuous desert habitat area for the conservation and management of key threatened and endangered species. Conservation of such lands would also provide habitat for various special status species. The mitigation bank plan would determine if it is feasible for the Department to be sole owner and operator, or if it would be more desirable for a third party to operate and manage the bank, or a combination of the two.

Headquarters/Statewide Projects

Northern Spotted Owl Recovery Team Meetings (\$6,717)

The northern spotted owl is listed as a threatened species protected under the Endangered Species Act. The U.S. Fish and Wildlife Service has convened a team of government and non-government scientific and technical experts to develop a recovery plan for the owl. Team members were selected based on nominations from federal land management agencies, the governors of Oregon, Washington and California, the timber industry and the conservation community. This project will allow the Department to participate and provide advice on the development and implementation of recovery plans that will serve as advisory documents to guide Federal, State, and private activities affecting the northern spotted owl. The goal of this recovery plan is to recover the spotted owl such that it can be removed from the list of threatened or endangered species.

Urban Nuisance/Depredation Wildlife Project (\$283,250)

The Department is authorized to respond, evaluate and deal with wildlife/human incidents throughout the State. This project is intended to facilitate and mitigate some of the demand on Department personnel involved with these incidents.

Objectives:

- Reduce the workload on Department personnel by contracting with USDA-Wildlife Services (USDA-WS) to respond as the agent to public safety and some depredation incidents for lions, bears, wild pigs, coyotes and a variety of other non-game species. USDA-WS would also act as the agent of a depredation permittee or the agent of the Department for public safety incidents to take the offending animal(s).
- Facilitate a statewide computer-based application for issuance and response to public requests for depredation permits.
- Facilitate a statewide computer-based application for providing the public information about dealing with nuisance wildlife.
- Improve knowledge of local first responders by providing local law enforcement and park agencies a training course (including a DVD) regarding wildlife behavior and Department policies.
- Provide training to Department personnel in the use of non-lethal firearm tools for dealing with wildlife incidents.

California Bat Conservation Plan - Phase I (2003) (\$22,451)

California has 25 bat species; one on the Federal Endangered Species list, ten currently recognized by the Department as Mammal Species of Special Concern (MSSC), four additional species proposed for MSSC status, four listed as Sensitive by the Forest Service, and five designated by BLM as Sensitive. Like the Partners in Flight bird management plans developed nationwide for various bioregions, California needs similar habitat-based plans for bats. Draft conservation plans have been completed for three western states: Arizona, Colorado and Nevada. These documents provide resource managers and environmental consultants with current distributional and ecological information on all bat species, plus an overview of the conservation threats and management issues relevant to this very important and often overlooked mammalian group.

The objective of this project would be to develop a California Bat Conservation Plan (Plan). The Plan would be peer reviewed, published and distributed under this project. The Plan would: 1) Provide resource managers and researchers with current information on the distribution, status, ecology, and conservation/management needs for each species; and 2) Assist state and federal agencies with decision making and priority setting for the conservation and management of bat populations in California.

This project already has been approved by the United States Fish and Wildlife Service (USFWS).

Develop Initial Components for a Western Burrowing Owl Conservation Strategy (\$107,577)

The Department currently has a 2003 State Wildlife Grant from USFWS to prepare a statewide conservation strategy for the burrowing owl in California. By securing matching non-game funds now, the Department will more easily meet the matching requirement and will have funds to initiate some research, surveys, education, or training. Examples of research needed include: a) probability of detection via standard four survey visit protocol; b) study the fate of owls that are evicted from their burrows via one-way doors; and c) identify methods to attract and maintain ground squirrels at burrowing owl breeding sites. Research and management priorities will be developed in cooperation with the Regions, USFWS, and owl researchers. The owl is a high priority within the Department due to the past listing petition (2003), and the conflict with developers due to take potential from discing, grading, and development projects. The owls are protected from take, as are their nests, by Department Fish and Game Code. However, because the species is not listed, CEQA projects rarely provide mitigation for owl habitat impacts and owls are often permanently evicted from their nest burrows during the non-nesting season. This project already has been approved by the U. S. Fish and Wildlife Service.

Western Pond Turtle Conservation Strategy (\$80,609)

The Western Pond Turtle, *Clemmys (Emys or Actinemys) marmorata*, is our only remaining native freshwater turtle and is a California State Species of Special Concern (SSSC). This turtle occurs along the Pacific rim of North America from Baja California to the state of Washington. While some populations appear to be stable, most appear to be declining in numbers, with populations in some parts of California in the most serious trouble or already extirpated. There is currently no statewide or comprehensive Strategy for the conservation of this species. Development of one is essential to preserve existing populations, bring others back to sustainable levels, and prevent the need for future listing under either state or federal statutes. The Strategy would begin with a comprehensive, range-wide review of existing information (published and otherwise), with the emphasis on California, but with input from researchers across the range of the species. Additional input will be provided by Department and other agency staff via facilitated workshops and the review process. This effort would establish the foundation for bio-regionally specific conservation actions and likely provide sufficient information for a publishable product (a Pond Turtle handbook) that could serve the future needs of biologists, agency personnel, and other interested parties who might be involved in the management or conservation of this turtle.

The peer-reviewed, published strategy would:

1. Provide resource managers and researchers with current information on the distribution, status, ecology, and conservation/management needs for populations of this turtle;
2. Identify issues, and propose actions to assist state and federal agencies with decision-making and priority setting for the conservation and management of Western Pond Turtle populations in California in a bioregional framework.

Bioregions will be defined according to those identified by the California Biodiversity Council; (see <http://ceres.ca.gov/biodiversity/bioregions.html>).

3. Identify conservation actions for public and private landowners.
4. Provide standards and guidelines for surveying and monitoring techniques.
5. Provide standards and guidelines for mitigation under CEQA.
6. Identify educational needs.

This project already has been approved by the U. S. Fish and Wildlife Service.

Greater Sage-Grouse (\$168,354)

The Department would conduct a research project on greater sage-grouse in California. The Department would contract out for research services by graduate student assistants for obtaining information on population demographics, genetics, and habitats of greater sage-grouse in California in accordance with State Wildlife Grant T-9-1. The objectives of the study would be to:

- a) Determine sex- and age-specific movement patterns and home ranges of radio-marked sage-grouse.
- b) Estimate nest success of radio-marked sage-grouse.
- c) Estimate sex- and age-specific survival of radio-marked sage-grouse.
- d) Investigate natal dispersal patterns of radio-marked greater sage-grouse.
- e) Describe genetics of greater sage-grouse study populations and compare levels of genetic diversity between subpopulations.
- f) Determine seasonal habitat use and compare habitat quality between subpopulations of greater sage-grouse.

This project already has been approved by the U. S. Fish and Wildlife Service.

Hoopa Fisher Study (2006) - Dispersal behavior, den site selection, habitat use, and vital rates of Pacific Fisher in North Western California (\$93,297)

The Wildlife Conservation Society and Hoopa Tribal Forestry are currently engaged in intensive Fisher studies in northern California. Their research was initiated in the fall of 2004 and is currently ongoing until February 2007, when existing funding expires. If funded by the USFWS via State Wildlife Grant funds, and the Department via Non-game funds, they could collect an additional season of data through the fall of 2007, and increase their sample size to provide higher scientific validity of the results. The project objectives include: 1) describe Fisher dispersal behavior patterns; 2) quantify Fisher den sites and habitat use; and 3) compare male and female Fisher survival rates using demographic data over a three year period.

Conclusions from the research effort will be used to better understand Fisher dispersal patterns and survival, and to more effectively protect all necessary habitat components for Fisher on the Hoopa Valley Reservation, and elsewhere in California as appropriate. The results of the work will also help inform the Department's statewide Fisher conservation strategy effort, as well as efforts by the USFWS to conserve Fishers on federal lands. The Coastal Martes Working Group supported this project as their highest priority Fisher research need. There is very little information available on Fisher demography, therefore,

this project is critically important in California because Fisher on or near Hoopa tribal lands have been identified as a potential source population of animals for translocation.

Revision of Mammal Species of Special Concern (MSSC) Document (2006) (\$27,429)

The original 1986 document is outdated. This project was stalled approximately a year ago, due in part to one contractor being unavailable through out-of-country responsibilities. Now, to finish the project, the Department needs to update the information provided by the contractors. The 1998 update was never completely finished by contractors and now needs to be reviewed and updated by species experts. A new team of contractors would update the document, provide peer and agency review, and publish the finished version in a fashion similar to that for the revised bird MSSC document and the proposed ARSSC update.

Xantus's Murrelet Recovery Planning and Monitoring (\$30,857)

Xantus's murrelets were state-listed as threatened in 2003 due to a variety of threats. They nest on some of the Channel Islands in southern California. Since the time of listing, the Department has not engaged in recovery planning with the National Park Service and other partners in the Channel Islands. A Recovery Plan needs to be written for this species in order to provide a road map to recovery. Monitoring of the murrelets is needed on Santa Barbara Island (SBI), the largest colony in California, where there has been evidence of decline. Additional monitoring could also be conducted at Anacapa Islands to better document murrelet recovery from rat eradication efforts of the recent past. Nest sites need to be mapped and marked with permanent markers, and all data collected on murrelets on SBI needs to be combined in one report to set the baseline conditions. Additionally, other stakeholders (National Oceanic and Atmospheric Administration, United States Navy, Conservancies, etc.) need to be engaged in murrelet recovery, and a coordinator needs to be hired to facilitate that process and dialogue, and to help produce educational materials for kayakers, hikers, and various fishing interests. Coordination with those involved in seabird restoration activities under the Montrose Settlement also needs to occur. A second volume of a Xantus's Murrelet Symposium also needs to be completed to help compile existing information on this globally-rare seabird.

Tricolored Blackbird (\$117,599)

The Department is proposing several projects to further the conservation of this species, as follows: 1) on State Wildlife Areas, identify potential for creating and enhancing habitat and develop a management plan; 2) conduct annual field investigation, for three years, to find nesting colonies and examine colony sites after the breeding season to determine productivity; and 3) contribute to investigation of genetic differences between northern California and southern California birds. This proposed project was previously approved by the leadership team for the State Wildlife Grants funding in 2006.

Investigation of Lead Toxicity in Raptors (\$167,934)

This is a collaborative project between the Department and the UC Davis Wildlife Health Center to investigate emerging issues and concerns related to lead toxicity in wild raptor

populations, including the California condor, golden eagle, bald eagle, and numerous hawk and owl species. The study will work to:

- 1) Assess heavy metal exposure in sentinel wildlife. Evaluate heavy metal exposure and associated morbidity and mortality in sentinel wildlife species in various habitat types that will represent a variety of environmental and anthropogenic sources of these contaminants in California.
- 2) Trace wildlife heavy metal intoxications to their sources. Identify sources of heavy metal contamination in California wildlife by comparing radio isotopic composition of heavy metals in sentinel wildlife samples to potential sources that can be traced to anthropogenic activities and environmental contamination.
- 3) Evaluate state regulatory efforts aimed at mitigating ammunition-based sources of lead in California Condors. If lead ammunition use is banned for use in deer hunting in the California Condor range, evaluation of lead exposure in sentinel wildlife over time, both within and outside the condor range will contribute to an assessment of the effects of this mitigation effort.

High Elevation aquatic surveys (\$44,783)

This project will provide State match dollars for ongoing Department efforts to determine the distribution and status of key aquatic wildlife species in the Sierra Nevada and Southern Cascade mountain ranges such as amphibians, native fish, and describe their habitat characteristics.

UC Davis, Coop Applied Research Studies (\$568,177)

This project will be a collaborative effort with the UC Davis Center for Population Biology to conduct needed applied research activities on species of great conservation need in California. The intent is to also strengthen the relationship between the Department and the UC system in working on burgeoning wildlife and fish issues in the state and foster scientific approaches to addressing these issues while providing additional academic opportunities to faculty and graduate students.

Burrowing Owl Surveys Statewide (\$67,174)

This project will provide us with a revised estimate of the statewide owl population, and provide a second data point for population trend determination from the previous work in the early 1990s. Population trend data is needed to help leverage action for the Department's conservation strategy that is currently underway via State Wildlife Grant funds. Results of the project will also help leverage CEQA mitigation and inclusion of this species in NCCPs, and other such large scale plans. For 2006 and 2007, it will include NE and SE regions of California to make up for the gap from previous work. The issue of owl numbers in these locales was a point of contention during the petition review process. This project will also help the Department proactively identify where to conserve lands for burrowing owls and associated species, and will identify landowners that we can negotiate with, using landowner incentive programs where feasible.

Infrastructure Inventory DFG Lands- Pilot Effort (\$279,891)

Assess the feasibility and identify steps needed to develop a comprehensive infrastructure 5-year plan that identifies needs for capital outlay, deferred maintenance, ongoing maintenance and habitat management for DFG lands.

R1- DFG Lands Public Education Trails (\$50,380)

Upgrade/create interpretive trail (grub and chip) (Mad River Slough-1 mile, Eel River - Cock Robin Island Unit -3 miles, Shasta Valley- 2 miles) include interpretive signs; totals 6 miles.

R1- DFG Lands Interpretive Panels (\$30,228)

Purchase and install interpretive displays (Butte Valley, Ash Creek, Fay Slough, Mad River Slough, Tehama, Lake Earl, Honey Lake, Shasta Valley); eight sites total.

R2- Lands Public Education Interpretative Panels (\$33,587)

DFG lands are managed without the benefit of an operating budget. To enhance visitor use and enjoyment, interpretive signs are needed to provide educational and interpretive information to the public related to fish and wildlife resources present at the site. Signs will be constructed of durable materials with artwork and descriptions of species and habitats viewable to the public and located at the entrance to the site or along trails

R4- Los Banos Grassland Education Center Support (\$67,174)

Funds would support materials and contract employees as part of a Department contribution to multi-funded interagency education program (ongoing) located on Los Banos Wildlife Area. Almost 2,000 local schoolchildren attend yearly.

R4- Public Outreach & Education (Fresno area) (\$111,956)

The Department and Fresno Metropolitan Flood Control District (District) are partnering in a pilot project to identify collaborative potentials in public outreach, and refine possible future efforts. The District operates around 40 water management basins in the area that support significant numbers of resident and migratory shorebirds and waterfowl. Some are near schools, bike trails, or associated with parks. The District also conducts extensive public education campaigns for water quality issues. The District and the Department will develop key concepts and “messages” for the public, linked to nearby opportunities to view wildlife. Suitable sites, events, and public information campaigns will be identified, and materials produced for distribution. A pilot project to install educational signage, conduct local outreach, and possibly develop a link to a nearby school is included as a key element.

Regional Projects: State Match for Resource Assessment (\$201,522)

Each of the six Department regions is conducting important resource assessment work on DFG and other accessible lands to determine the distribution and status of fish, wildlife, and native plant species. This project provides some of the State match for each of the regions allocation of Federal State Wildlife Grant (SWG) funding consistent with the Wildlife Action Plan in implementing priority assessments, surveys, and applied research on California's fish and wildlife species and habitats.

Item 3600-001-0001 Department of Fish and Game

7. One-Time General Fund Augmentations.

On or before February 1, 2007, the department shall provide a report to the Legislature on its expenditures of one-time General Fund augmentations in the 2006-07 Budget Act for activities in the marine region, salmon and steelhead restoration projects, nongame fish and wildlife trust resources, and funding for the Coastal Wetlands Account.

DEPARTMENT RESPONSE:

FY 2006-07 – Coastal Wetlands Fund

PROGRAM DESCRIPTION

The South Coast Region currently owns and/or manages nine (9) distinct coastal wetlands properties (5,138 acres) in the five-county area including Santa Barbara, Ventura, Los Angeles, Orange and San Diego counties. The lands were acquired through purchases (primarily with voter approved Bond Act funds), donations or mitigations. Some are considered State Tidelands and are owned in Fee Title by the State Lands Commission but are under long-term leases to the Department of Fish and Game (Department) for management. The coastal wetlands properties have been designated as Ecological Reserves by the Fish and Game Commission and are protected under Section 630, Title 14, California Code of Regulations (CCR). Each coastal wetland is unique in its characteristics, however, all can be classified as high profile, important to the local communities, and each has threatened or endangered species which the Department is mandated to protect, enhance and recover.

AUTHORITY

AB 1801, Chapter 47/48, Statutes of 2006-07, Item 3600-013-0001, directed the State Controller to transfer \$5,000,000 to the State Treasury in an interest-bearing account. The principal of the Coastal Wetlands Fund shall not be expended, and shall be maintained so that the interest earned by the account will provide a continuous source of funding for wetlands maintenance. The expectation is that the interest in the Coastal Wetlands Fund shall be appropriated in the annual Budget Act according to the following schedule:

- ♦ Sixty percent to the Department of Fish and Game for expenditure pursuant to Section 6217.9 of the Fish and Game Code for maintenance of coastal wetlands owned by the Department of Fish and Game.
- ♦ Forty percent to the State Coastal Conservancy for expenditure pursuant to Section 6217.9 for maintenance of coastal wetlands.

The Department of Fish and Game is the administering agency for the Coastal Wetlands Fund (3104) and is mandated to carry out the requirements of Fish and Game Code Section 6217.9 using 60% of the interest earned on the \$5,000,000 principal. The State Coastal Conservancy (SCC) will be establishing a similar program for non-Department coastal wetlands properties with the remaining 40% of the interest earned.

The Department and SCC will meet and confer on the best way to implement this requirement. The management and maintenance of Coastal Wetlands is a necessary function to protect and enhance species and habitats within coastal wetlands; to formulate management strategies for habitat preservation and enhancement efforts on both Department and private lands (via SCC); to emphasize current and expanded outreach programs on Department and private lands with particular emphasis on wetland habitats; and to gather and synthesize information on wildlife and habitat resources on Department lands and certain private land holdings to ensure the long-term conservation of species and habitats.

BUDGETED RESOURCES

The Department projects that approximately \$135,000 will be available in interest annually in the Coastal Wetlands Fund. This amount is 60% of the interest on the \$5,000,000 principal, calculated at the rate of ≤5% per annum per Public Resources Code 6217.9. The Department will require an appropriation in the annual budget to spend this annual interest.

The 2007-08 Governor's Budget proposes to augment the Department's budget by \$135,000 for one new permanent position in the classification of Wildlife Biologist, and operating costs to purchase materials or contract out necessary work at each site. One position for a Wildlife Biologist to staff California coastal wetland properties will:

- 1) increase the quality of service provided by establishing permanent personnel and expertise,
- 2) increase the ability to conduct and assess detailed biological data over the long-term,
- 3) lead to better decision making,
- 4) increase contact with the public, state and federal agencies regarding coastal wetlands, and
- 5) provide more focused management on coastal wetlands Ecological Reserves.

The Wildlife Biologist will work with existing staff to promote on-the-ground enhancement activities as identified in area Land Management Plans and implement recovery actions as identified in Species Recovery Plans.

The resources for the Wildlife Biologist and operating budget will allow the Department to perform necessary coastal wetlands management and monitoring activities anticipated throughout the South Coast Region. The properties will be managed in a manner that will improve habitats and species populations with the goal of maintaining associated threatened, endangered and other special status species in perpetuity on those lands.

A work program will be formalized to:

- 1) identify and carry out necessary management and monitoring activities, and
- 2) implement adaptive management strategies to enhance the species populations that these lands support.

The following nine Department properties will be managed and enhanced from the Coastal Wetlands Fund (3104):

<u>Ecological Reserve</u>	<u>County</u>
Goleta Slough ER	Santa Barbara
Ballona Wetlands ER	Los Angeles
Bolsa Chica ER	Orange
Upper Newport Bay ER	Orange
Buena Vista Lagoon ER	San Diego
Agua Hedionda Lagoon ER	San Diego
Batiquitos Lagoon ER	San Diego
San Elijo Lagoon ER	San Diego
San Dieguito Lagoon ER	San Diego

Item 3600-001-0001 Department of Fish and Game

8. Salmon and Steelhead Trout Restoration—Klamath River Projects.

On or before January 10, 2007, DFG shall provide a report to the Legislature (including budget and fiscal committees from both houses), on its use of state funds for restoring the Klamath River, its progress to date, and its plans for the budget and future years for this restoration effort. The department's report shall discuss how the department's efforts are being coordinated with those of other state agencies expending funds for this purpose. It is the intent of the Legislature that the state undertakes a systematic approach to Klamath River restoration.

DEPARTMENT RESPONSE:

FY 2006-07 -- Fisheries Restoration Grant Program
--

PROGRAM DESCRIPTION

The Department of Fish and Game (Department) was authorized \$4 million in ongoing General Fund for the Fisheries Restoration Grant Program (FRGP) for FY 2006-07. These funds contribute to the required 25% state match for the Federal Pacific Coast Salmon Recovery Fund (PCSRF). In previous years, Tidelands Oil Revenue (FY 2000-02, and 2005-06) and Bond funds (FY 2000-01 through 2004-05) have contributed to the required federal match.

Project grants are awarded by the FRGP through an annual competitive solicitation process in May of each year. Proposals received undergo a rigorous technical review during the summer months, and then a review by an advisory committee. The advisory committee, the California Coastal Salmonid Restoration Grants Peer Review Committee, evaluates each proposal, makes recommendations for funding in early November of each year, and provides the Department Director with a prioritized list of recommended proposals. The Department Director then makes final annual funding decisions in December or January.

The majority of these funds go toward implementation of habitat restoration projects that improve overhead cover, spawning gravels, and pool habitat; reduce or eliminate erosion and sedimentation impacts; screen sites where water is diverted for agricultural and urban uses so fish remain in their habitat; and remove barriers to fish passage.

Funds have also been awarded for activities that indirectly affect habitat restoration. Examples are cooperative fish rearing, acquisitions of riparian easements, research, project monitoring, watershed assessment and planning, support for watershed organizations, and public outreach and education.

BUDGETED RESOURCES

The following table provides the dollars and projects that have been dedicated to the Klamath Basin for each of the last six fiscal years. As detailed above, funding decisions for 2006-07 will not be made by the Director until December 2006 or January 2007 of this fiscal year.

Fiscal Year	Federal Funds	State Funds	Total Investment	Total Number of Projects	Investment in Klamath Basin	Number of Projects Klamath Basin
2000-01	\$9,000,000	\$15,085,000	\$24,085,000	309	\$4,644,198	65
2001-02	\$15,086,000	\$8,233,000	\$23,319,000	139	\$10,057,105	41
2002-03	\$16,950,000	\$12,303,000	\$29,253,000	204	\$5,163,261	47
2003-04	\$13,839,500	\$8,000,000	\$21,839,500	135	\$2,804,084	26
2004-05	\$12,869,834	\$8,000,000	\$20,869,834	150	\$3,436,798	33
2005-06	\$12,698,469	\$6,700,000	\$19,398,469	178	\$2,811,740	40
<i>Tentative</i> 2006-07	\$6,300,000	\$4,000,000	\$10,300,000	TBD	TBD	TBD
Total	\$86,743,803	\$62,321,000	\$149,064,803	1,115	\$28,917,186	252